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ABSTRACT

A 3-year collaborative research project to develop a curriculum designed to meet the needs of learners for the 21st century is based upon a Delphi survey of approximately 150 national business, government, and educational leaders. They were asked to respond to questions in five key environmental areas. The study of demographic, economic, political, technological, and social trends has produced five major themes upon which k-12 curriculum can be designed. These themes include change and adaptability, global interdependence and cultural diversity, quality of life, technology, and self-actualization. Outcomes are included in order to suggest an appropriate curriculum restructuring framework and design. Chapter 1 gives the introduction, methodology, assumptions, limitations, and curricular themes of the study. Chapter 2 gives a review of the literature, the major environmental trends, demographics, values, economics, and technological changes. Chapter 3 elaborates on the research and methodology, identifies the top 10 trends for education for the year 2000, and gives a sample Delphi flow chart. Chapter 4 elaborates on each of the five major themes, and chapter 5 presents a brief concluding statement. Appended are five Delphi survey questionnaires. (42 references) (RR)

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A Vision of a Preferred Curriculum for the 21st Century

Action Research in School Administration

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Change and Adaptability
Global Interdependence and Cultural Diversity
Quality of Life
Technology
Self-Actualization

Outcomes for each of these five themes are included in this project in order to suggest an appropriate curriculum restructuring framework and design to help students live effective and productive lives in the 21st century.

Acknowledgements

It is a pleasure to thank the individuals who have contributed to our program of studies and this project.

Foremost, The A team appreciates the sincere efforts of Dr. F. James Clatworthy and Dr. Beverley Geltner who remained closest to the project throughout its many phases. Their presence and unfailing confidence in the team were tremendously reassuring.

Special thanks are also extended to Dr. John M. Schultz and Dr. Monte Clute, adjunct professors to the Education Specialist Program, for their inspiration and motivation as provided in their courses, *Strategic Planning* and *Curriculum Design*, respectively.

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Chapter One

Introduction

The challenge of a new way of thinking is not a call to abandon cherished values that have provided meaning and direction: rather it is a challenge to participate in creating a new vision of our role as humans and in educating students to achieve that potential. (Crowell, 1989)

Statement of the Problem and the Goals of the Study

In the above remarks, Samuel Crowell urges educators to address the the future with "a new way of thinking." His perspective shares that of Doxiadis (1974), who views the future as the "constant past," the "declining past," the "continuing past," or "the created future--the spontaneous act of creativity that provides shape and direction for the world to come." In this vision, "the future...is rooted in the past yet open to imagination and creative initiative."

The orientation of both Crowell and Doxiadis to consider the future with "creative initiative" is shared by the authors of this project. In September, 1988, the Action Research Team of the Education Specialist Program in School Administration and Leadership at Oakland University began its quest to design a more effective curriculum for use in America's schools. The motivation for this study was the growing criticism of contemporary American education for its failure to prepare students adequately for life in the 21st century. Leaders in business, industry, government and higher education, as well as those in public school systems throughout the country, were united in their criticism that what students learned was all too often ineffective and obsolete.

This study was designed to document major American societal trends, and to suggest an appropriate curriculum restructuring framework and design to help students live effective and productive lives in the 21st century.

Definition-- Key concepts discussed in the project are defined as follows:

Curriculum--all those activities intended to create positive learning experiences and growth.

Delphi--a social survey technique which involves polling experts and others for their predictions on important future demographic, political, economic, technological and social trends.

Driving Force--one of five key areas of societal change which are expected to impact future trends. (see Delphi)

Quality of Life--a constructive and healthful life style for individuals, families and communities.

Methodology

During the summer of 1989, the authors of this project developed a Delphi Survey to poll approximately 150 experts in business, industry, government, higher education, and public school systems from across the nation to gain insights into a desired future for American education.

The first step of the Delphi survey project involved a literature search to identify projections on key features of American life in the 21st century. Following this search, the authors formulated appropriate questions and presented them to a carefully selected group of respondents. The survey asked respondents to identify trends in five key societal driving forces:

1. Demographic Changes
2. Political Developments
3. Economic Challenges
4. Technological innovations; and,
5. Social Transformations

The second step, an analysis of the survey responses, led to the creation of the future scenarios in the areas of the key driving forces. In the third step, the scenarios were presented to the selected expert respondents who were once again asked for their replies. The final step involved a careful synthesis of the second round of responses to identify the emerging trends and issues for each key driving force, as well as the implications and consequences of these trends for American education.

When these trends and issues were analyzed, evidence mounted for the necessity of educational change to address America's future. A clearer understanding emerged of experts' perspectives of life in the 21st century and of the projected needs of future citizens. The implications of these future societal needs on educational reform were clarified and a new urgency was felt for a restructured and redesigned curriculum framework.

Assumptions

Underlying this study are the following assumptions:

1. The Delphi survey technique is a valuable tool for obtaining views on anticipated

changes, values and choices for the 21st century.

2. The broad spectrum of respondents chosen for the Delphi survey represents a valid and reliable sample population of informed and concerned citizens from various fields and backgrounds.

3. Educational themes need not be based solely on analysis of quantitative data, but can be inferred from data generated by a Delphi survey.

4. Educational changes and reforms are necessary to meet the needs of students for the 21st century.

5. Curriculum content and design issues must be placed at the forefront of the educational reform and restructuring agenda, and addressed as a core component in the development and operation of schools, in order to meet present and future societal needs.

Limitations

The team believes that educators will be able to use the findings and projections of this study as guidelines for the development, implementation, and delivery of curriculum for the 21st century. This study does not, however, propose a specific curriculum outline for a particular subject discipline; nor does it propose to repair or refine present curriculum, nor offer a specific prescription for modifying the curriculum development process.

Rather, the study raises awareness about the impact of key questions and issues to be addressed in a consideration of meaningful American educational reform. The findings can serve as a framework for change and for realization of the project's mission:

**the design and implementation of significant curriculum transformation
in order to ensure that all students are adequately prepared to meet the
challenges of living in a rapidly changing national and global society.**

Proposed Curriculum Themes

In the same way that virtually all aspects of life and change are interrelated and interactive, so is the proposed framework of a restructured curriculum: Its five major themes provide the foundation for the entire instructional process and include:

1. Change and adaptability
2. Global interdependence and cultural diversity
3. Quality of life
4. Economic and technological change
5. Self-actualization within a democratic society.

These themes unify the key driving forces of demographic, economic, political, technological and social changes into major commitments for educators inspired or impelled to look ahead. In the same way that virtually all aspects of life and change are interrelated and interactive, so does the proposed framework of a restructured curriculum provide the foundation for the integration of the entire curriculum design. Its precepts apply to both content and process, and can be integrated across all discipline boundaries, with relevance to all curricular activities--the science lab, the class field trip, the writing program or the playground.

Summary

Implementation of the suggested new framework suggested may help schools realize more fully the authors' vision--that all students successfully complete their K-12 education, and emerge as capable and powerful individuals, willing to take risks and make mistakes, confident and able to learn from their world, capable of making choices and taking action on behalf of the enhancement and enlightenment of their world.

Chapter Two

REVIEW OF THE LITERATURE

Efforts at School Improvement: 1983-1990

The recent spate of critiques of American public education was initiated in 1983 with the release of the report "A Nation at Risk." During the remainder of the "Decade of Educational Debate," numerous educational topics were examined closely, including the decline in mastery of basic skills, student dropout rates, the challenges of ethnic pluralism, and lowered graduation standards.

Initial educational reforms derived from "top down" legislative mandates, with more than 700 statutes passed across the nation. These measures reflected the belief that American education was failing the national interest due to:

"laxness, an abandonment of standards and accountability. The response, therefore, was more often than not to get tough; to raise standards, tighten accountability, increase testing, beef up the curriculum, and demand better teachers and better teaching."
(Hill, 1989)

By 1980, Boyer lamented that it was that very government intervention that was "destroying the spirit of the people in the classroom," by removing all authority from the local level in attempting to make schools, "learning proof."

The focus of these initial efforts was on education as a "utilitarian rather than an intrinsic value," serving national needs of security and economic well-being. Also stressed in initial school improvement efforts was the issue of equity. Educators argued that quality in education must be expanded to embrace all students in all schools, and redesigned to foster success in inner city as well as suburban schools.

Lawrence Lezotte, Director of the National Center for Effective Schools, led research and development efforts on behalf of a school improvement process based on equitable and improved student outcomes for all learners including those of lower socio-economic status.

From 1986 on, educational reform efforts stressed that educators, not legislators, should assume primary responsibility for the revitalization of public education. In an address to the American Education Research Association in 1986, TheodoreSizer argued on behalf of local control of education, stating, "the decentralization of substantial authority to the persons closest to the students is essential." He urged educational reforms to be courageous and bold:

"to challenge the regularities--the routines and activities that are so familiar they are habitual. WE even fail to question them. There are so many in school-curriculum, departments grades, scheduled periods, (those 53 minute snippets of time), and particularly the metaphor of giving an education...nothing is beyond questioning." (1990)

New thinking and examination of the basic goals, functions, and structure of American public education have created a demand for more than mere school improvement. Paradigms of a former day are being openly challenged. The demand for major educational restructuring, not just cautious incremental change, is heard throughout the land. Fundamental restructuring is seen as vital to ensure quantum leaps in the promotion of learning. At the recent Michigan School Restructuring Conference, Slzer (1986) remarked that restructuring means, paraphrasing Marshall McLuhon, that we do "not drive faster and faster into the future, trying to steer by using only the rear-view mirror."

Supporting this position were the reports issued by the Holmes Group, the Carnegie Task Force, the National Governors' Association, the Educational Commission of the States, and the Association for Supervision and Curriculum Development.

The position of the National Education Association on this matter was quite clear:

"Teachers cannot hope to ready students for responsibility within a participatory democracy if they themselves are condemned to an autocratic bureaucracy." (Futrell, 1989)

Thus, empowerment of local educators and school communities became the focus of reform efforts during the second wave.

Further, Futrell argued on the behalf of the basic purposes of education. As important as "competitive zeal" was to serve the national interest, so was "zealous compassion" and the need to address both the intrinsic and instrumental purposes and values of education. Education must prepare students for serving the needs of their country as well as their own need for knowledge and the love of knowledge.

"As the intellectually demanding and precariously balanced world of the 21st century comes into view, it seems clear that the mission of education must be not to train people to serve the purposes of others, but to develop their capacity to question the purposes of others." (Futrell, 1989)

She stressed that educational reformers should learn from this debate and

incorporate both intrinsic and instrumental goals in any school improvement plan:

"We need education that serves our national interests even as it awakens us to the common interests we share with all nations and peoples. Our highest aspirations cannot be achieved without an education in which instrumental and intrinsic values intersect."

Unfortunately, most results of recent school improvement efforts to date have been "add-ons" to school programming, already bloated with additions from previous decades. A coalition of poorly defined special interest groups has led to slow, unrelated, incremental changes to a system which requires more radical rethinking and redesign.

Lezotte acknowledged that, in order for education transformation to occur, "decision making will be more decentralized as the individual school is recognized as the production center of public education; and therefore, the strategic unit of planned change." At the same time, legitimate authorities will still have the duty to clarify, give needed direction, articulate goals, set priorities, and show evidence for progress in implementing a shared vision within an atmosphere of local, state, and federal collaboration.

Phillip C. Schlechty has argued that restructuring goes far beyond mere improvement (1990). "School improvement," he argued, "is improving how we follow the present rules, roles, and relationships. Restructuring goes further--it challenges us to do something that has never been done before." Further, those in positions of educational leadership must use their authority "to create a system in which people are encouraged to think and act in a purposeful manner. Only when educators realize that their business is student progress and their profit, student learning, will school improvement become a reality."

School improvement literature also includes new definitions of effective school leadership. Glasser (1990) argues for "lead management" as opposed to "boss management" to achieve new levels of quality performance by both staff and students. Only through a better understanding of basic human needs and the creation of a climate in which needs can be internally satisfied can the educational community be led to quality performance.

Stressing the power of this concept, Glasser points out the remarkable success achieved by the Japanese since World War II. Under the leadership and direction of Dr. W. Edwards Deming, new management techniques were implemented which motivated Japanese society to strive for quality in all that they produced. Managing for quality requires a noncoercive and cooperative attitude among management and workers. Glasser refers to this condition as "lead management," and believes it must be learned and practiced throughout the educational system in order to reconstruct our school organization.

Major Environmental Trends

What is clearly evident is that as the 21st century approaches, educators must respond to a dynamic external environment that impacts on teaching and learning. A scanning of the major environmental factors impacting America's schools indicates four of primary importance.

1. Demographics
2. Values
3. Economic transition and competition
4. Technology

Demographics

Cook (1988) identifies three unprecedented demographic phenomena--the aging population, the diversification of the family unit, and the transition from a nation with minorities to a nation of minorities--as being sufficient to require unprecedented fundamental changes in America's public education system.

Demographics highlight the profound impact of the graying of America on our society. According to Cook:

1. By the year 2000 the median age will be 36.3; 50 percent of the labor force will be over 40; and 32 million citizens will be over 65.
2. Every 10 years, the number of people over 85 will double.
3. By 2050, the number of Americans over 100 years of age will be one million.
4. Two-thirds of school patrons are "empty nesters."

The implications of these demographic changes for education include likely decreased economic support, a demand for retraining and lifelong learning programs, and a need to establish mutually beneficial activities for the local school district and its older citizens.

Also impacting education is the changing concept of the family. The term "family" has had a new connotation in the last two decades. In 1955, 60 percent of families consisted of a father, mother, and two children. Today that "typical" family amounts to only seven percent of our society.

Further:

1. 60 percent of children born today will live with one parent;
2. Single family heads of households number over nine million, and 50

percent of them receive no financial support from the fathers of their children.

3. Each day 40 teenage girls give birth to their third child--many by choice. (Cook, 1989)

These trends have required schools to assume an unprecedented role in child and in family nurturing. And, during the past two decades, virtually every conceivable social and legal responsibility has fallen upon schools, including issues relating to physical and mental health, morals and ethics, and economics.

Another demographic phenomenon cited by Cook is the rapid transformation of the United States into a nation of minorities. There is emerging a diverse and, in many areas, dominant minority population. One-fourth of all students currently in public schools are minorities. In the year 2000, minorities will constitute one-third of the student population. Over half of the students in 53 American cities will be from minority groups.

Values

According to Cook, each economic period in America's history has been accompanied by a corresponding ethos. Curran, Gurevitch and Woollacott (1982) describe the present urban, industrial society as characterized by volatility, rootlessness and alienation. American society is no longer anchored in a network of social relations and stable inherited values that characterized steeled, rural communities.

Expanded impact of public media has played a strategic role in extending and reinforcing dominant social norms and values. The emergence of new values and the media's reinforcement of dominant values reflects the "disorder" described by Naisbitt (1982) as he identifies three key societal movements:

1. A shift from centralization to decentralization of organizations.
2. The shift from seeking institutional support to exercise in self-help.
3. The abandonment of "either/or" in making choices to the practice of exercising multiple options. Naisbitt (1990)

Naisbitt also identifies cultural nationalism as a dominant trend of the 90s. In a rapidly evolving economic system, individuals no longer have a sense of participation in society's shared norms and values, hence integration and stability are threatened.

Additionally, pressure groups attempt to exercise leverage and elude the traditional democratic process. With such a diversity of the population, there must

evolve a mutual understanding among the cultural groups to maintain peaceful coexistence.

With the new and powerful emphasis on cultural nationalism, the regard of the individual as supreme, and the increasing influence of new technologies such as biogenetics, human choices are becoming virtually infinite and are not without consequences. For Fuller (1969) the issue is humanity's ultimate choice between utopia or oblivion.

Economics

The American economy is in process of transition, from the industrial, to the information and biotechnical age. Though many manufacturing jobs will remain, the nature of work for millions of Americans will be redefined. America is encountering enormous economic change both internally and externally. No longer driven primarily by domestic forces, it finds itself increasingly impacted by a competitive, challenging world economy

In such an environment, America needs workers who possess essential critical skills including information processing knowledge, adaptability and flexibility. By 1992, 25 percent of all workers will be involved in data manipulation. Twenty-two percent of the world's population will earn the average of 50 cents per hour, undercutting our labor force. The American workforce has only one choice, and that is to work smarter.

American public education has been forced by circumstances into competition. Thus the unparalleled demand for knowledge, information and a skilled workforce --especially that which is excellent--has made education the biggest business in the United States, possibly the world.

Technology

The rapidly increasing pace of technological changes presents new challenges to society's ability to adapt. Several major technological innovations now challenge human intelligence and understanding.

1. Despoiling of the global ecosystem,

- a. Depletion of the ozone layer
- b. Potential exploitation of Antarctica
- c. Massive air and water pollution
- d. Destruction of the world's tropical forests

2. Unprecedented bio-technological advances,

- a. Freezing of human embryos
- b. Use of human fetal tissue for treatment of disease
- c. Surrogate pregnancy
- d. Life saving/sustaining procedures

3. Unethical conduct,

- a. Unauthorized copying of computer software
- b. Computer hacking
- c. Computer viruses
- d. Breaching of national and international security systems
- e. White collar crime

4. The ever present danger inherent in:

- a. Nuclear, chemical, and biological weapons that have the capacity to destroy life as we know it.
- b. The political instability in our world that makes such danger possible.

At issue, then, is society's ability to respond in an ethical, moral, and timely manner to the diverse and complex problems brought by advancing technologies.

Summary

Schools do not operate in a vacuum, but are in fact an expression of their society. As American society in the last decade of the 20th Century experiences major transformations in virtually every aspect of its environment, the transformation of mainstream values, economic changes and competition, and technological advancements, so will American schools have to be transformed. The impact of these changes on education will be profound. It is therefore imperative that educators continually scan the external environment for change, strategically plan for the change process, and implement educational policies and practices which respond to changing needs.

One ASCD network that is involved in an ongoing environmental scan for Quality Schools, Community Development and positive action for an improved bio-region is the Learning Community Network. (Clatworthy, 1991). The authors of this project are members of the network and continue to conduct action research for school improvement and transformational planning.

Chapter Three

RESEARCH AND METHODOLOGY

The goal of this study is to identify the major societal trends at the end of the 20th century and to consider their implications for American education in preparing students to deal with the problems that will impact them as citizens of the 21st century.

The process of the identification and development of societal issues is a critical step in this analysis. Initially, an issue may appear as a value concern held by a few. Next, the concern may develop into a potential issue, still lacking clarity or definition. Over time, the issue may become framed and titled. Finally, it appears in the media where it eventually becomes public domain.

The timeline for a societal concern to become an issue may range from 20 - 100 years. Consequently, early prediction of issues is imperative in order for educators to plan for the impact of societal change on all educational constituents--teachers, students, administrators, parents and the community--and all aspects of the educational system.

A number of forecasting techniques can be used to scan the environment and identify major societal concerns and issues. The forecasting technique used in this project was the Delphi Survey. This research design analyzes the environment by identifying the key driving forces impacting the present structure and causing significant transformation and change. A valuable aspect of the Delphi is its potential for broad participation by local and national experts and its relevance to the objectives of this study. While valuable as a tool of societal macro analysis, the Delphi can also be used at the local school or district (micro) to guide and chart the future course of both mission and curriculum objectives.

For the purpose of this study, the following five key societal forces were chosen for analysis: demographics, economics, politics, technology and social climate. While other forces and issues are impacting American education at this time, a review of the literature indicates that these five drivers encompass the majority of issues facing education in the next ten years. Selection of these key drivers was followed by extensive reading, formulation of questions, and the identification of "expert respondents." Respondents were selected from a pool of identified national and local authorities in each of the five key areas. Two cycles of communication were then made by letter, telephone, electronic conferencing and personal meetings, in order to gather and synthesize the respondent information. The procedures for each of the survey rounds is as follows:

Round One

1. A survey was developed for each key driver. (See Appendix A)
2. Respondents were invited to identify and/or comment on issues and trends for the year 2000.
3. Recurring themes, issues and trends were framed and clarified.
4. A survey for Round Two was developed for each key driver.

Round Two

1. Respondents were asked to react to the resulting framed issues by agreeing, disagreeing or elaborating.
2. Responses were analyzed.
3. Synthesized information from Rounds One and Two were combined with information and readings from related literature.
4. A summary document was developed for each key driver. (See page 27 for Sample Delphi Flow Chart)

Summary documents were instructed to answer three basic questions:

1. What are the emerging issues?
2. What are the possible implications for society?
3. What are the consequences for education?

The resulting information was then analyzed to identify and label the ten major categories of recurring trends, most likely to become issues in the 21st century and to impact American education.

Top Ten Trends for the Year 2000

- Increasing minority populations
- Increasing median age—the graying of America
- Increased diversity in family structures
- Increased number of females in the workforce
- Growth of an unskilled and disenfranchised underclass
- Increasing pervasive and complex growth of technology and information
- Increasing interconnectedness of business and education
- Increasing global interdependence and continued change in world economic systems
- Increasing costs/concerns for resources and the environment
- Increasingly complex ethical and value-laden problems

Analysis of these trends was conducted to reveal their possible implications for American society at large and the resulting consequences for education. The results of this analysis are subsequently listed for each trend to provide a more manageable and concise overview of the vast amount of information received.

Trend #1. Increasing Minority Populations

<u>Implications</u>	<u>Consequences</u>
- Frustrations of "white majority" will increase as the proportion of minorities increase - Conflict between groups will increase - Ethnic groups will strive to preserve their cultures - Populations of non-English speaking citizens will grow - Political clout will shift to minorities - Mandated affirmative action will be eliminated	- Schools must teach compromise, empathy, and appreciation for diversity - Conflict over "English only" school curriculum will increase - Schools need to present a wide range of exposure to cultural experiences - ESL (English as a Second Language) programs for adults and children will need to be expanded - Need for a more literate society will become more critical as more power shifts to minority voters

Trend # 2. Increasing Median Age--The Graying of America

Implications

- Increase in percentage of elderly voters will direct legislation and funding of program
- Job population will shift as older citizens stay in the work force
- School elections and millage issues will become focal points
- Additional support services will be needed
- Aging America will need more health services, money management, and personal services
- Percentage of general population of school age (5 - 17) will decline.
- Schools will compete with the elderly for funding
- Retirement will be extended

Consequences

- Financial support for education through millage increases and renewals will decrease
- Intergenerational conflicts will need to be addressed
- Education will move toward life-long learning, seeking to attract the elderly
- Number of adult education courses will be expanded to fill leisure time
- Schools will be made available for use 7 days a week and evenings
- Adult education courses in fitness and wellness will increase
- School community will expand to include more of the general population
- More "grandparent" or elderly inclusion programs will be necessary to build the bridge of support from the elderly for schools
- Teaching careers will span more years resulting in less staff turnover and increased needs for teacher retraining

Trend #3. Increasing Diversity in Family Structure

Implications

- Increase in the number of single heads of households which will precipitate an increase in additional services (latchkey, job training, parenting, drug and alcohol education)
- Increasing need for family support services
- Single heads-of -households will experience less involvement schools

Consequences

- Schools will need to add increased latchkey services
- Schools will need to join with social services and community to offer added childcare and family services
- Curriculum will need to emphasize parenting skills, family life, decision making and values education
- Schools must be more flexible, creative in involving parents; more activities will need to be scheduled in the evenings, and will need to include both parent and child

Trend #4. Increase in the Number of Females in the Workforce

Implications

- Increase will give women greater wealth, more power and greater political influence
- Earning gap between males and females will narrow
- Traditional gender roles will merge
- More families will need increased support services

Consequences

- Themes of gender equity and multiple options will need to be stressed
- Career counseling will be more androgynous
- More females will opt for administration and more males for the elementary classroom
- Schools will need to provide more daycare and latchkey, as well as preschool and summer programs
- Schools must adopt more flexible hours for conferences and plan more evening activities

Trend # 5. Growth of an Unskilled Disenfranchised Underclass

Implications

- Intergenerational cycle of poverty and frustration will continue
- Low-skilled, low paid underclass will have limited leisure/disposable income choices
- Burgeoning health care costs will result in more government regulation, more rationing, and fewer benefits
- Double income will be needed to support one family adequately
- Housing needs will not be satisfied by the year 2000

Consequences

- Drop out rate must be a K - 12 issue with preventative actions taking precedent
- Collaborative support network between social agencies and schools will be a necessity for at-risk children
- Career counseling, employability plans and vocational training must start before high school
- Schools must teach coping with stress and change and self-actualization
- Health and social services will compete with education for funding
- More "wellness" programs will be established in schools stressing self-responsibility
- Health education will be seen as a new basic
- Schools will be expanded to shoulder the responsibility for "attitudinizing" students toward future jobs
- Schools will continue to deal with transient populations

- Social, emotional, and financial instability will result in increased drug and alcohol abuse
- Early identification, intervention, and prevention strategies will become a key focus in schools
- Unemployment will rise as a result of poorly matched jobs with the workforce needs
- High schools will need to offer job training using a combination of technology, life-skills and personal support, (counseling, child care and transportation)
- Underclass will become increasingly trapped by the widening gap between the technologically literate and the illiterate
- Schools will need to provide frequent access to computers integrating them into the curriculum rather than as a separate subject
- Respect for the legal system will decrease
- Schools will need to build into the curriculum ongoing opportunities to establish conflict resolution skills and team process skills as positive alternatives to destructive behaviors

Trend #6. Increasingly Pervasive and Complex Growth of Technology and Information

<u>Implications</u>	<u>Consequences</u>
- New discoveries in technology will continue to create new jobs and to phase out others - Service jobs for high tech equipment and programs will increase - Human contact will decrease more as tech integration integrates in all aspects of life - Industry will scale down the number of employees needed - Technological literacy will be basic for employability. - Pace of change will be ever increasing demanding more sophisticated thinking - Number of workplaces dealing with the information brokering will decrease dramatically. - Access to information through home personal computer stations will continue to increase	- Education will need to reassess curriculum in order to meet job market needs - Higher education or private education will need to train service people and program designers - Training in basic technology practices including word processing will be needed for all - Career guidance and individual employability plans will need to be established for all students - Technology will need to be integrated into instruction, not taught separately - Schools must teach problem solving and critical thinking, not rote knowledge - Efforts to promote interest and proficiency in science, math and technology in tandem will increase markedly - More individualized learning at home and at school employing multi-media and electronic networking

Trend # 7. Increasing Interconnectedness of Business and Education

Implications

- Business/education consortiums will continue to flourish
- Business will take a more active role in education, economically and politically
- Consumers will gain more influence in schools through their support of what they see as quality schools
- Society's expectations for schools will exceed the money available for use
- Individuals will be expected to continue education in order to keep a job or to prepare for a new position as the job becomes obsolete
- Education through private sectors will increase, particularly business-sponsored training and remediation

Consequences

- Education will need to establish liaisons with businesses to address employability skills
- Schools will need to provide qualified instructors and not just certified
- Schools will have to move toward being inviting in order to capture their share of the market
- Courses such as co-op classes will need to be offered at more flexible hours
- Education will need to expand its services to adult learners
- More schools of choice will be offered
- Schools will need to broaden their view of education to include more voc-ed and technological training and not gear curriculum to the college bound.

Trend #8. Increased Global Interdependence and Continued Change in World Nations

Implications

- Focus will change from economic domination to cooperation and trade customs
- Defense orientation will change to user orientation of technology
- Protectionist sentiment will wane
- Trade and budget deficits will need to be controlled
- Current valuations may fluctuate more drastically
- Technology will render the "global village" economy very competitive.
- Global firms having technology/ information networks will hold a strong competitive edge
- Military expenditures will be reduced

Consequences

- Course offerings at all grade levels will need to be more global, stressing currencies, languages and cultures
- Interrelationships between economics, social studies and geography need to be emphasized in the curriculum
- More modern language study will need to be started at an earlier age
- High school economics will be required
- Schools will need to focus on technology systems as a basic and a major part of global economics.
- Schools will need to build a sense of the critical need for adaptation to the changing global economics
- Peace dividends may go to the repair and replacement of the decaying infrastructure and to business loans rather than to education

Trend #9. Increasing Costs/Concerns for Resources and the Environment

Implications

- Health and environmental issues will appear interrelated
- Costs for the effects of pollution and nuclear waste will increase significantly.
- New ways will be sought to convert garbage/wastes into power and to reduce the amount of materials used
- Jobs in waste management will increase
- Costs of products will rise due to scarcity of natural resources and user taxes on disposable items
- Business will need to police its own pollution or the government will legislate mandatory controls

Consequences

- Environmental education will become a new basic
- Business and education will need to set partnerships to develop solutions to the environmental and waste disposal solutions
- Higher education will need to develop curriculum to train people in the area of waste management
- Science, math and technology courses across all educational levels will need to be expanded
- More males and females will be recruited for studies and careers in science and technology
- Education will need to model minimum resource consumption

Trend # 10. Increasingly Complex Ethical and Value Laden Problems

Implications

- Unnurtured children may be less values oriented
- Materialism and shallow cause will increase
- Ethical issues will increase with technological advances, (genetic engineering, techno-theft, medical advance, computer viruses)
- Those capable of designing, building, operating the technology will be in control.
- Courts will move to turn over to voters and politicians those issues that are highly passionate and deeply dividing

Consequences

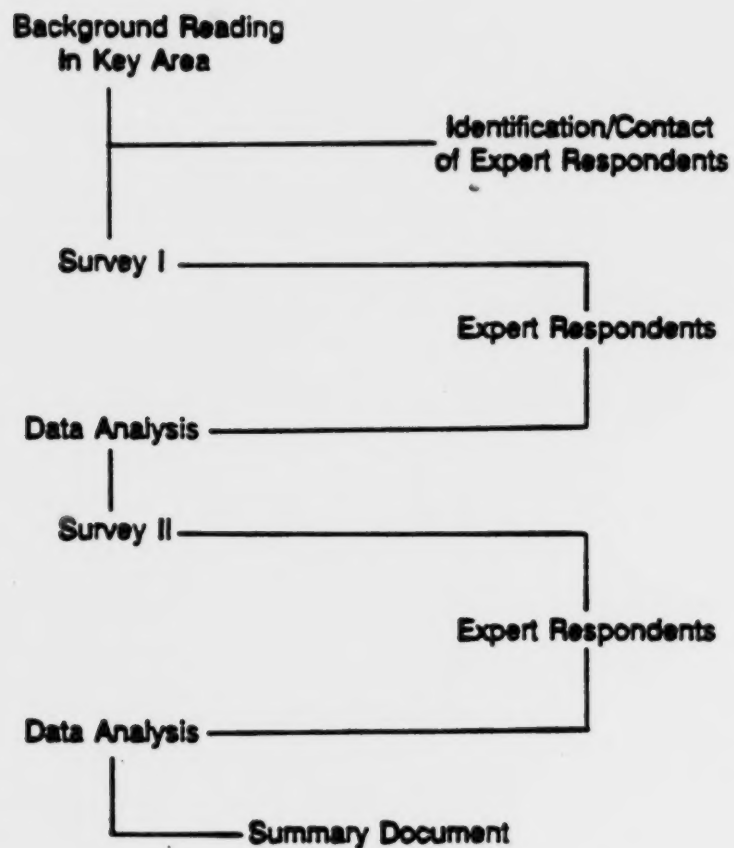
- Education will need to teach valuing, rather than a specific set of values to all children.
- School will need to focus on rewarding collaborative, supportive, solution oriented behaviors rather than personal "product" accumulation and the judgmental comparisons between individuals
- Ethics will need to be added to the curriculum, especially in the areas of business, science and technology
- Schools and communities will need to build a sense of community responsibility for the advancement of society.
- Schools will need to teach the interrelatedness of technological advances and product use, and the resulting social repercussions

Summary and Conclusion

The Delphi research project clarified the critical issues impacting American society by a strategically chosen group of specialists in business, politics, social science, and education. These issues were considered singly and in relation with each other and served as the basis for the design of "A Preferred Curriculum for the 21st Century."

The resulting curriculum is dedicated to developing self-actualizing, life-long learners--learners who will be able to address the issues of cultural diversity, global interdependence, quality of life, change and adaptability, increasing technology, and world economic systems in balance with the natural environment. It is to the preparation of these learners, the future citizens of the 21st century, that this "Preferred Curriculum" is directed.

Sample Delphi Flow Chart



Chapter Four

PREFERRED CURRICULUM FOR THE 21ST CENTURY

THEME # 1: CHANGE AND ADAPTABILITY

Constant, rapid change has become the norm in contemporary America. All institutions in our society have been impacted by such change and are reshaping themselves in response to evolving needs. Today's population will be replaced by one which will be paradoxically both younger and older and more ethnically diverse. There will be a continued shift from an industrial to an information and service work force with technology playing a major role. The world will continue to become more globally interdependent. The American family will increasingly be an institution of options and variations, with no single family type representing the majority of Americans. The implications of all these changes on the learners of the 21st Century will be the need to be aware of this constant and rapid flow of change and to adapt to it.

"The strength of a society can be measured in its ability to respond to change by modifying outdated institutions and inventing new ones" (Costa, 1985). Yet change is often viewed in a negative light as something to be resisted. Therefore, to ensure the success of any element of change, the following tenets must become part of the 21st Century mindset.

Change must be:

1. A process, not an event--occurring over time.
2. Accomplished by individuals. Therefore, individuals must be the focus of attention. Successful change takes place through the collaborative involvement of individuals in planning and implementation.
3. A highly personal experience. Each individual reacts differently to change: some assimilate a new practice more rapidly than others; some engage in the process more readily than others. Change will be most successful when its support is geared to the diagnosed needs of the individual users.
4. Developmental in growth in terms of feelings and skills. These shift with respect to the new program or practice as individuals pass through stages of increasing experience.
5. Best understood in operational terms. Individuals must naturally relate to change in terms of its meaning for them and its effect on their current behaviors,

values, and beliefs.

6. Focused on the facilitation of individuals, innovations, and the context. Books, materials, and equipment alone do not make change: only people can make change by altering their behavior. The real meaning of any change lies in its human, not its material, component. (Hord, 1987)

In addition to these critical elements, regarding change, individuals must learn to be successful "mushroom detectors." Mushrooms pop up unexpectedly after a spring shower. Similarly, efforts to facilitate change may produce some surprising and unplanned results from time-to-time. Individuals must be sensitive to new possibilities, take corrective actions as they can, and learn to thrive in a changing landscape (Hord, 1987). In other words, adaptability is a key dimension that can facilitate change; and it is the individual that must be the focus of attention in the change process.

The following suggestions may facilitate the individual's frame of mind toward successfully adapting to change. According to Drucker (1988):

1. Instead of fearing change, expect it. View change as normal. Individuals must constantly check themselves to determine how flexible they are to new ideas, surprises, and other situations that demand adaptability to change.

2. Use the "salvage-the-situation" approach. When things don't work out as planned, don't panic. Use that experience as a learning tool.

3. Ignore the little disappointments and irritations in order to reach the larger goal. Adaptable people learn to live with a certain amount of inconvenience, embarrassment, discouragement, dismay, and antagonism. They concentrate on what really counts--the major goal or objective.

4. Cultivate innovation techniques. According to Drucker, when individuals are buffeted by change and faced daily with new threats and challenges, innovation is vital. There are always ways to do things more effectively, such as combining some old techniques with some new approaches.

These critical variables of the process of change must be considered in the planning and development of a preferred curriculum model for the 21st Century. Specifically, the needs of both the adults involved in the change process and their students must be considered. As developing, growing human beings engaged in a common educational enterprise, both share the need to adapt their own personal growth to critical characteristics of this evolving environment. Such adaptation includes a fluid and evolving posture to career development, a capacity to work with others in collaborative partnerships, and an ongoing commitment to lifelong learning.

Continuous career development is a necessity in order to allow people the skills

necessary to adjust to change. This is due to the transforming nature of work which evolves from explosive information technologies, the new types of jobs which come into existence, and the fact that most adults will have several careers in a lifetime. Learners involved in ongoing career development will have to exhibit effective skills in communication, valuing, decision making, flexibility, and envisioning. As a result of ongoing career development, learners will view change as a positive expectation rather than a fear. Learners will exhibit flexibility and will tend to view themselves as generalists rather than specialists. It is therefore, imperative that schools equip learners with skills that are transferable from one job to another, and that they stress process rather than isolated techniques.

Further, as the world continues to turn away from isolationism toward global interdependence, the need for collaboration and partnerships across the business/education community continuum becomes even more apparent. The skills involved in collaboration such as communication, listening, decision making, and cooperative problem solving do not come naturally. As these skills are taught, modeled, and practiced, learners develop a noncompetitive and collaborative mindset. The common work model will be groups or teams, via telephone, personal computer networking, and person-to-person. To produce students capable of integrating these processes, schools must emphasize group task performance and problem solving throughout the curriculum.

As scientific knowledge doubles every two to three years, the ability to access appropriate information will become more important than the mere storage of information in human memory. Likewise, process and interpersonal skills will be more important than amassing large amounts of data. The abilities to access and process information will be vital to those in the work force, since they will be expected to face retraining every five to seven years. The idea of lifelong learning will become an indigenous concept. Learners instilled with the skills of critical and creative thinking, analysis and synthesis, decision making and learning options/life options will be able to manipulate content in order to extend its relationships and apply content to produce meaningful understandings of themselves and their world. Learners who become increasingly responsible for their own current learning, as well as lifelong learning, will demonstrate their need for and success with activities that are hands-on, learner centered and process-oriented. Learners taking a more active role in their education will be seen as explorers, risk-takers, and cooperatively engaged thinkers. In order to foster such behaviors, teachers will have to assume the role(s) of facilitator, motivator, listener, and nurturer. Traditionally isolated classes will have to be integrated into interdisciplinary activities related by theme, topic, or cluster, i.e., holistic learning. Collaborative learning teams will need to be employed to create the conditions necessary for students to implement and practice thinking skills processes of analysis and synthesis, critical and creative thinking, and decision making.

Summary

Contemporary American society has undergone constant, rapid change and will continue to do so well into the next century. Learners of the 21st century must be aware of and adaptable to the massive and swift transformation of their personal and professional lives.

"In times of change it is the learners who will inherit the earth, while the learned will find themselves beautifully equipped for a world that no longer exists." (Hoffler, 1982)

Outcome Area 1: A fluid and evolving posture to career development

1. Learners will exhibit skills in communication, valuing, decision making, flexibility and envisioning.
2. Learners will view change as a positive expectation.

Outcome Area 2: A fluid capacity to work with others in collaborative partnerships

1. Learners will integrate a variety of communication skills, listening, decision making and cooperative problem solving.

Outcome Area 3: An ongoing commitment to lifelong learning

1. Learners will acquire necessary process and interpersonal skills as well as be instilled with the skills of critical and creative thinking, analysis and synthesis, decision making.
2. Learners will become explorers, risk-takers, and cooperatively engaged thinkers.
3. Learners will become responsible for their own learning.

THEME #2: GLOBAL INTERDEPENDENCE AND CULTURAL DIVERSITY

As the United States experiences for the first time major international and economic competition, American schools are being challenged to measure themselves on a new and global standard. America's future workers must possess the skills needed to compete economically with those in other countries and to understand other cultures in order to deal with them effectively. In numerous ways the global interdependence of the world becomes manifest as fiber optic networks and satellites span the continents connecting nations in a matter of seconds. As international business flourishes, America's students must be more prepared than ever to work and cooperate both linguistically and technologically with citizens from other countries. American students must learn to survive in a globally interdependent world where what happens in the stock exchanges of Tokyo, London, and Hong Kong clearly affects the economy of the United States.

Impact of Change: Domestic and Internal Forces

Ironically, as global interdependence has increased in scope over the past few years, so has the realization that the United States is no longer the traditional "melting pot," but rather a mosaic of many nationalities coming together to realize the American dream of prosperity and democracy. In just 20 years, more than half of America's school-age children will be minorities. The broad diversity of a mosaic society will require that children be able to work together in harmony. Through education, they will have to learn to accept and to understand the values and beliefs of their culturally diverse fellow students. "And, unless educators learn to prize and value differences and to view these as resources for learning, neither whites nor minority groups will experience the teaching and learning situation best suited to prepare them to live effectively in a world whose population is characterized by diversity" (Pine, 1990).

Results of Change: A Preferred Curriculum for the 21st Century

In this age of expanded global awareness, schools will have a critical role to plan in addressing the question of how all citizens can live together in peace. Specifically, a new and enhanced cultural global awareness must be instilled in America's children through education and experiences which address the issues of tolerance and acceptance of cultural diversity, ethnicity, racial, age and gender differences. This new curriculum will require an enlarged view of the traditional humanities areas--the philosophy, literature, art, history, geography and languages of the world in a manner that may no longer be Euro-American centered. As Boyer says, "we have studied Western civilizations to know our past. We must learn about non-Western civilizations to know our future" (1980).

Thus an effective curriculum design for the 21st century must combine knowledge, attitudes and behaviors and must include studies from the Pacific Rim to the African nations. Students must possess the knowledge of international social and political institutions; international cultural and artistic expressions; and, international languages and peoples.

Student attitudes and behaviors must demonstrate not only an understanding of American cultural roots, but also the realization of the effects of an ethnic plurality in the present culture and the importance of an interdependent and connected world. An appreciation of the relationships between resources and people and an understanding of how geography and culture affect life styles and values is also an important outcome. Students need to show positive interactions with members of various cultural groups and tolerance toward different peoples and ideas. Expanded student and teacher exchanges abroad should be pursued to provide Americans with the opportunity to experience other languages and cultures to prepare them to more effectively participate in this globally interdependent world.

Modern Language Study

To address such a global curriculum, particular attention should be paid to the direct medium of human communication, namely the study of modern languages. A major key to understanding other nations is to study their culture and language. Students must come to appreciate that the study of other societies can lead to a greater understanding of their own. Knowing another's language distinguishes the thought patterns, self-concepts and the ways in which a culture communicates itself to the world.

The importance of foreign language study has been delineated as numerous national reports have commented that the United States can no longer ignore modern language study for its children. Many policymakers link the need for increased study of foreign languages to concerns about economic health and national security. Senator Paul Simon (D. Ill.) in emphasizing the importance of second language study for children, points out that in developing nations such as Botswana, "the average fourth grader has had more years of foreign language study than has the average college graduate in the United States" (1989). The 1979 Report by the President's Commission on Foreign Languages sounded the alarm that the United States was not linguistically competent. It described American ignorance of foreign studies as scandalous. Surely, a comprehensive global curriculum must include the study of a second language. In addition, the curriculum design implications of this goal suggest that languages be studied from the early grades in elementary school through high school and college. Given the specific pattern of the United States international security and trade, it could be argued that the languages of the Pacific Rim countries, the Soviet Union and the Arab world should be offered along with the traditional course offerings of French, Spanish and German.

Staff Development

A commitment to global awareness must be developed in educators who influence young learners. Many adults do not espouse some of the concepts necessary to promote global harmony. Teacher training and staff development must focus on the same skills, attitudes, behaviors, and strategies listed for students. Collaborative learning among students, staff, and community in recognizing this interdependent new world will produce students able to compete on an international level, and thus ensure America's future success.

Too many Americans still practice and believe in the concept of isolation in their daily lives failing to recognize that interdependent living in a global world is a fact of life. To ignore this trend can only lead to America's failure to produce students able to compete on an international level. An internationally literate curriculum is paramount to our nation's success and is necessary to prepare citizens equipped to function effectively in the interdependent world of the year 2000 and beyond.

Summary

A new focus on international education is essential for America's schools. When the Soviet Union threatens its satellite countries, when Polish or South African workers organize unions with the potential to reshape their workforces, when Brazil and Argentina unite in a South American common market, when free trade with Mexico is proposed, the economic and geopolitical balance of the United States is altered. American's children need the skills and knowledge to evaluate these events intelligently as they relate to democracy. A preferred curriculum of the 21st century must provide opportunities for American children to be well versed in the tenets and beliefs of their American heritage so they can better evaluate and reflect upon the cultural heritage of others. A true international education is the basis for full citizen participation and responsibility in our worldwide society. Students need to understand the contributions of all world cultures to be able to develop respect and appreciation for them. They need to see the relationships between nations and then to recognize that we are all members of a necessary and interdependent global village.

Outcome Area I: International Focus

Learners will:

1. Recognize differences in international social and political institutions.
2. Compare international cultural and artistic expressions.
3. Speak another world language.
4. Respect values, ethnic backgrounds and cultures of a people from a variety of racial and ethnic groups.

Outcome Area 2: Understanding relationships

Learners will:

1. Show understanding of American cultural roots to contrast and compare with others.
2. Know the relationships between resources and populations.
3. Develop the concept of an interdependent world.
4. Realize the effects of ethnic plurality in the American culture.
5. Understand the individual good vs. the collective good.
6. Explain how geography and culture affect life styles and values.
7. Model interaction with members of various cultural groups.
8. Develop an appreciation of the international arts.
9. Show tolerance toward different peoples and ideas.
10. Exhibit social conscience toward the sharing of resources.

Outcome Area 3: Teaching Strategies

The educator must provide common learning experiences for all learners which foster a sense of global consciousness by:

1. Providing an understanding and appreciation of the heritage of our country including the literary, artistic, political, economic, historical and scientific;
2. Providing an understanding and appreciation of the literary, artistic, political, economic, historical and scientific contributions made to world civilizations by non-Western as well as Western cultures;
3. Producing an awareness of the interdependencies that exist among individuals and nations;
4. Showing how the past has affected the present and how the past and the present help determine the future;
5. Developing responsibility as citizens of the world and community;
6. Developing a sense of universal values;
7. Developing the ability to communicate in a second language;
8. Arranging for students/teacher exchanges abroad.

Outcome Area 4: Modern Language Study

Learners will:

- 1. Begin the study of a second language in the early grades;**
- 2. Study the less commonly taught languages of Arabic, Chinese, Japanese, and Russian;**
- 3. Attain minimum proficiency in one second language by grade seven.**

THEME #3 QUALITY OF LIFE

Introduction

In creating a new curriculum design that will meet the needs of learners in the 21st century, a major issue to be addressed is the need to educate for the enhancement of the quality of life for all American citizens. Quality of life emerged as an important theme in both the literature on education and the future, and in the Delphi data. Authorities in various fields emphasized that creating a positive quality of life requires change in some critical and interactive areas, especially in the eight following areas: wellness, family life, values and ethics, community life, the natural environment, work and leisure, life-long learning, and the arts. Issues related to each of these aspects of quality of life have paramount implications for all domains of American society and for American classrooms.

Wellness

At the core of an enhanced quality of life is wellness, an expanded view of good health which promotes both positive and preventive behaviors by responsible individuals, work places, and communities.

Physicians and health educators stress that in order to lead full and effective lives, today's students must acquire the knowledge, discipline and behaviors for responsible and healthy decision-making. A responsive curriculum therefore puts heavy emphasis on the student's decision-making abilities. Health facts alone do not bring about healthier life styles, and health education which limits health to the scientific domain will not be integrated into young people's lives. For this reason, a preferred curriculum will stress the student's options in decision making. Social problem-solving on the implications of personal choices will be discussed and applied to real life situations such as dealing with peer influence or anticipating negative consequences. This approach is equally effective in teaching about fitness, alcohol and drugs, AIDS and other sexually transmitted diseases.

Statistics on Americans in general and on adolescents in particular indicate that choice-making is critical in determining the degree of health in one's life. For example, studies repeatedly show that the majority of premature deaths are related to life style choices. For young Americans aged 15-24, death rates have increased, the major causes being motor vehicle accidents, homicide and suicide. And for younger children, current trends indicate less fitness and more stress. The school will not be the only place to prepare for health in real life, but it will need to provide the best in wellness education both because of the importance of shaping attitudes from a young age and, quite frankly, because of default in other arenas of society.

The tension between the academic environment and "real life" will be eliminated

in our schools when critical health issues, such as the use of alcohol and other drugs, become topics for interdisciplinary study as well as issues for schools to actively confront. Trained educators will need to provide scientific and social information through research, guest speakers, and other resources. The best programs in any wellness-related area will not only present the facts but also provide encouragement and support for productive change with personal, social, environmental and political problems. Schools will also need to encourage healthy decision-making by collaborating with parents and community resources.

In a curriculum emphasizing wellness, students will need to study topics in active ways which emphasize the necessity and power of their own decision-making. For example, in the area of stress, a relatively new but essential subject in today's curriculum, young people will need to know the information about physiology, the kinds of stress--and will need to practice alternatives such as relaxation techniques and assertive communication. Finally, in holistic ways, one health trend will need to be related to another--stress to family dynamics, disease to environmental hazards, emotional needs to sexuality. Schools, public health agencies, and parents will need to work together, within and between our communities, to resolve public health issues and crises.

Family Life

A second area intimately related to quality of life is the life of the family. When analyzing the important social trends for the 21st century, people seem to point to this important aspect of people's lives as a critical barometer for social health. No doubt, families, and especially parents, influence children fundamentally and permanently. When they function effectively, families can serve as social anchors in uncertain times. However, when they are dysfunctional, they not only mirror the social malaise around them, but they also help produce it.

Some say that contemporary society is in a bonding crisis. Magid and McKelvey argue that "greater numbers of psychopathic individuals are headed our way," due to a bonding crisis for the very young which is producing detached children who are antisocial, even amoral (1987). Various factors contribute to this trend, they say, including "the increasing numbers of mothers working outside the home, the child-care crisis, the teen-pregnancy epidemic, the high divorce rate, increasing child abuse and neglect, the shambles of the foster-care system and too-late adoptions."

Whether or not we accept Magid and McKelvey's prediction, we do know that young people seem to get little preparation for the awesome responsibility of parenting. Fortunately, the needs for a realistic and future-oriented family life education seem to be increasingly recognized as meriting a place in the curriculum. Educators are realizing that for many students who see little positive modeling at home, the school may be one of few institutions to offer the promise of healthy family living. Further, for some children, the school, with its possibility of caring

relationships, may offer the only opportunity to experience a functional family-like setting. For the 21st century, therefore, curriculum designers must address the issue of effective parenting. This goal will be particularly challenging given the limitations of "outmoded" materials. Books which depict the Cleaver family model will need to be replaced by those featuring, and even celebrating, diverse models of an enlarged concept of family. The new definition extends beyond the traditional nuclear family to include all other groupings formed around committed and caring long-term relationships. In addition, students will need to learn about various family patterns and the common elements to all, including nurturing, love, commitment, parental authority, shared goals, and responsible decision making.

In discussing family issues and in analyzing their own caring relationships, students will need to learn that good parenting requires a lot more than a biological bond or custodial care of a "doll-like" infant. Fortunately, current successful high school family-life classes stress responsible parenting--and discourage teen pregnancy--through requiring students to simulate some of the same burdens a parent must shoulder. Such curriculum on family education will need to extend outside the classroom. Schools and communities will need to work together. For example, social agencies and school social workers will need to provide outreach activities in order to make significant impact on the lives of those young people who have little support. Thus, a preferred curriculum will not only change substance and approach in learning, but also forge new partnerships to help ensure such personal and social change. For high quality family life, collaboration is critical between the school and other institutions, including obviously the parents.

Community Life

Family life, community life and school life are all intimately related. Not surprisingly, the Delphi research and the study of literature on trends for the 21st century show that many social analysts and concerned citizens see the problem of lack of community in American society as catastrophic and in need of being addressed in our young people's education. Social critics who try to understand the range of personal unhappiness and societal dysfunction on a national scale see impoverished community life as at least partially responsible. Two extreme examples speak to impoverished community life: on the one hand, the suburb of well-groomed estates in which one neighbor is unknown to another and, on the other hand, the blighted urban neighborhood of boarded houses which invite the diseases of drug dealing and other crimes. In the 21st century, neighborhoods, towns, and cities without the ethos of community, called *communitas*, will remain a challenge. How do we increase positive communication and trust so that the public environment is safe and welcoming--and so that its citizens will want to come together to take action to better their community and their lives? And where do people find community if their life styles have eliminated traditional small town community life? Bellah, et al. (1985) raise some of the critical issues associated with an urbanized life style that will characterize the 21st century: "What duties does one have toward the vast agglomeration of anonymous individuals that surrounds the circles of families and friends with whom one is personally involved? Can the impersonal metropolis be a

community of memory?"

A curriculum which serves its students and future citizens will focus on ways to create community in various contexts including neighborhood, city or town, as well as school and workplace. In this curricular effort, schools will need to be positively connected to their communities in practical and concrete relationships. Traditional use of community resources in the classroom and on field trips, essential as they are to community-learning, will have to be supplemented by real partnerships between community agencies and local interests with the school. Community service projects, more appropriately called service learning, will be the key in helping young people feel a connection to the people of their own and other communities.

In order to promote participation in community life, a preferred curriculum will need to emphasize active, democratic community action. For young people such participation must begin in the classroom with school decision-making processes and procedures. When students and teachers articulate common values, negotiate common interests, and peacefully resolve conflicts, they are simulating necessary community-building skills and attitudes. Curriculum study will need to focus on community heroes, including local figures, and the process of effective change-making. Models of effective community change can be compared, even cross-culturally. Finally, educators, employers, and employees will need to talk about developing communities in both the work setting and the school setting not only because some neighborhoods will remain groups of disconnected houses, but also because people will continue to make major commitments in these two areas of life.

Positive attitudes about community and work, skills of cooperation and peaceful resolution of conflict, respect for diversity, and responsibility for oneself and others can all be developed in the classroom. A revised outlook which sees work as a benefit to the community vs. work as self-aggrandizement will develop in the classroom when educators, parents, and employers agree to stress internal satisfaction, group goals, and a fulfilling process of working as learning, more than extrinsic rewards. Such changes are critical, say Bellah, et al., if we are to move toward healthier, happier personal lives. "If the ethos of work were less brutally competitive and more ecologically harmonious, it would be more consonant with the ethos of private life and particularly, of family life."

The authors believe that this orientation to workplace and work relationships as community will be a major factor in filling the void of the loss of the traditional "communities of memory." Bellah continues (1985) continues:

Undoubtedly, the satisfaction of work well done, indeed, the pursuit of excellence is a permanent and positive human motive. Where its reward is the approbation of one's fellow more than the accumulation of great private wealth, it can contribute to what the founders of our republic called civic virtue. Indeed, in a social ecology, it would be a primary form of civic

virtue. And from it would flow a number of positive consequences. For one thing, the split between private and public, work and family, that has grown for over a century, might be mended.

Arts

The visual and performing arts is the fourth aspect of quality of life under consideration. A preferred curriculum aimed at enhancing the lives of current students and future citizens will emphasize the arts for at least four reasons:

1. The arts provide the opportunity for self-actualization that academics and other forms of analytical thinking do not ordinarily cultivate.
2. The arts develop patterns of thinking that other parts of the curriculum do not.
3. For both artists and art-appreciators, the arts add quality to life, providing richness and textures, in short, humanity to one's existence.
4. Artistic endeavors not only encourage the expression of individual and cultural differences, but they also stress the commonalities existing across all human divisions.

The performing and visual arts are given lip-service in a society which makes an artist's life economically hazardous, gives little artistic education to its young, and then cuts the little available funding in schools. This lack of commitment can be seen as somewhat ironic when, at the same time, more educators are seeing art as the great teacher of creative possibilities. They agree with Gardner (1983), who reminds us that thinking related to art is not so much a talent as much as a valid form of intelligence which is neglected in educational systems dominated by standardized testing. Gardner sees seven forms of intelligence: two familiar ones: linguistic and logical, mathematical; and five that Western thought have neglected; (a) interpersonal intelligence; and (b) intrapersonal intelligence which are extremely artistic endeavors; (c) musical intelligence ("the ability to perceive and create pitch patterns and rhythmic patterns"); (d) bodily-kinesthetic intelligence which explains the "gift of fine motor movement, as you might see in a surgeon or a dancer"; and (e) spatial intelligence, which allows a person to "find (his or her) way around an environment" (Ellison and Gardner, 1984)

Like Gardner, educators are finally recognizing the arts as necessary and exemplary forms of a much needed, often under-valued intellectual way of looking at the world and who and what are in it. More pragmatically, stretching one's horizons and finding creative possibilities will increasingly be valued as essential problem-solving techniques that schools will need to foster. More and more, the world

of work will demand employees who think not only logically, and technologically, but also creatively in a variety of ways. The artistic process will enhance the development of such a disposition.

A vision of the preferred curriculum for the 21st century finds the arts on an equal footing with academics and integrated with them. To grow creatively, students will have to be involved in a variety of legitimate visual artistic processes. In the performing arts, music can be appreciated, studied and also integrated with other, and sometimes very different, disciplines. Role play, drama, creative movement and dance will also need to be effectively infused into the curriculum; they are not only forms of artistic expression but, with the right instruction, challenging and joyful means of self-discovery, self-expression and communication, all necessary to the self-actualizing learner. The right instruction should include apprenticeship systems. "The child with superior spatial intelligence ought to be working in an architect's office or in mapmaking. Apprenticeship ensures the transmission of skills to individuals in a position to use them" (Ellison and Gardner).

The arts will combat cultural stereotypes by drawing freely from world cultures and by providing the universal yet individual experiences of feeling and learning. Instrumental music, song, dance, sculpture, painting can bring peoples to a better understanding; they can also bring suburban, rural, and urban learners together.

Natural Environment

As educators prepare the next generation for their future, there are environmental concepts which pupils must be aware of for their own survival, and the issues involved must be recognized as crucial and begging for solutions. Air pollution, water and land pollution, hazardous waste, acid rain, excessive garbage, energy waste, overuse of pesticides, household toxins, and ozone depletion should not be remote areas of knowledge for anyone. A consciousness of the necessity for a clean and healthy environment must extend beyond the parameters of the visible condition of one's home to the tangible and intangible surroundings of the universe.

In introducing environmental concepts, a preferred curriculum must strive to develop and nourish among its learners skills essential to environmental awareness and responsibility:

1. Observation
2. Reading
3. Writing
4. Peer collaboration
5. Research
6. Inquiry
7. Reflection
8. Prediction
9. Critical thinking

10. Planning and organization
11. Awareness of resource people and support organizations
12. Effective activism.

Provisions must be made for students to apply these new skills. All activities should provide opportunity for learners to manipulate ideas and engage in effective activism, rather than merely receive and memorize facts. Each learning experience should be structured to foster development of these desired outcomes in conjunction with an overall goal of community involvement.

All lessons and activities should strive to move beyond new knowledge and information to new attitudes and behaviors. Learners should be able to verbalize, pursue a philosophy, and respond accordingly. They should evaluate their individual actions for consistency in positive regard for the natural environment.

Work and Leisure

With the advancement of technology in American society, both the nature and the demands of work needed for basic survival may be reduced resulting in more time to spend with families and friends for discretionary activities. In adapting to the changes of the 21st century, learners will need to know the character of the work place, expect it to be evolving, and prepare themselves accordingly.

Essential realizations for learners in the 21st century are:

1. No longer is it commonplace to select and remain with an occupation for life.
2. Personal interests and abilities are as important in making a vocational selection as are the economic benefits.
3. Personal skills, such as positive peer interaction, collaboration, responsibility, dependability, and problem-solving, are as necessary as performance skills in the workplace.
4. Process is as important as the product.
5. Technological literacy is a necessity.
6. Ongoing occupational retraining is essential to maintain a high quality of life.

Instructional activities of a preferred curriculum should include experiences which enable learners to identify an array of goods and services that move America economically and socially. Specifically, students should have opportunities to

"shadow" mentors for a period of time in their respective work places. Performance skills relative to various occupational fields should be identified and developed. Interpersonal skills should be modeled, and where appropriate, learners should be able to use an actual work setting to apply their personal and performance skills. In the educational setting, relevant work experiences must be provided to foster growth in employability skills. Learners should be able to contribute to forums which critically analyze and seek solutions of employment issues. Learners need to be informed of existing employment opportunities and relevant prerequisite skills.

Instructional experiences for the learners must yield new attitudes and behaviors which enable learners to value themselves as contributing members of society. They will seek excellence and display a cooperative spirit as they involve themselves in their daily activities. They will not see their years of employability as being finite; rather, they shall view their years in the ranks of graying America as an opportunity to share expertise, wisdom, and time in moving our civilization forward.

With "work" managed more efficiently, there will be more time available for leisure. The efficient management of leisure time will require planning, and the development of new skills and aesthetic preferences.

To make leisure time pleasurable and filled with adequate variety, learners should know the many options they may exercise to entertain themselves. They must understand that their own choices are primary in selecting satisfying leisure activities. They must recognize the importance of designating activities in which they can engage themselves during "free" time and actively consider new activities for exploration. They must know that an informal personal inventory of interests and abilities can greatly assist them in selecting meaningful leisure activities.

Schools should offer a variety of manual, technical, physical and creative thinking experiences to engage the active participation of students. Vicarious and real exposure to multi-ethnic recreational activities must be provided. The study of humanities should be included as a source from which leisure activities can be drawn. Opportunity should be provided for the students and teacher to discuss and create an open set of options for individual and group recreational activities. The instructor should help the learners identify the benefits of engaging in meaningful leisure activities. Activities should be planned to facilitate the development of team spirit, self-fulfillment, sportsmanship, risk taking, and pride.

Effective experiences in leisure management must yield individuals with a sense of purpose even in their "free" time. They are guided by their interests in selecting and seeking out fulfilling activities. They will recognize the importance of being able to enjoy life singularly or as part of a group. They will take pride in their leisure experiences just as they would in their occupational activities.

A proper balance of work and leisure is necessary for a high quality of life. Individuals must know that appropriate discretion in creating this balance is crucial for them as well as the society.

Values and Ethics

When we speak of changing attitudes of learners, the issues of values and ethics surface. Underlying these issues are morality and religion. If the goal of education is to create knowledgeable, humanistic, and decisive people, the learners must be able to anticipate how their actions will affect themselves and others.

In the context of working on an outcome-based curriculum, values and ethics are prerequisite to peaceful coexistence, and by implication, survival. Values and ethics must not be resigned to the "hidden curriculum" of our schools. Their importance and identification must be brought to the forefront.

Concepts which educators must instill, model, and promote are self-esteem, respect for others (individually and culturally), decision-making, collaboration, cooperation, negotiation, compromise, conflict-resolution, and an understanding that a variety of cultural philosophies and religious doctrines exist.

In order for schools to create responsible citizens whose values enhance their lives and the lives of others, schools will need to help learners develop the appropriate attitudes and strategies toward learning and living with others. There must be a systematic critical analysis of situational issues which affect learners. Activities must be planned which require the participants to reach consensus, solve moral dilemmas, or attain a common goal. Learners must be given opportunity to showcase accomplishments to the group in some positive manner. Creative projects, group and individual, are essential. Where appropriate, opportunity must be provided for persons to share some unique element of their ethnic backgrounds. The instructor must be a mentor-facilitator in an environment where learners can acquire the essential knowledge for making informed judgements. Ultimately, learners will be expected to be humanistic decision makers and activists. They will see themselves as unique contributors to a unified society of diverse composition.

Lifelong Learning

John Gardner states, "We are in the early morning of understanding our place in the universe, our spectacular latent powers, and the flexibility and transcendence of which we are capable" (1983). Gardner implies that vibrant societies thrive on motivation, commitment, conviction, values, and other human attributes that give meaning. Conversely, rigidity, apathy, and moral emptiness lead to self-destruction. Lifelong learning is a necessity for continuous renewal and a high quality of life.

As educators, we are charged with helping individuals understand their responsibility in keeping informed and active, anticipating and controlling change, and being capable of effective interaction with their environment.

To develop such attitudes and behaviors, learners must experience success in initial learning activities. Instruction should include activities which promote basic competencies, self-esteem, goal setting, creative expression, identification of positive role models, identification of career and community involvement opportunities, and awareness of cultural diversity. Practical experiences with new technological systems will be necessary to make the routine activities of society more comprehensible and relevant. People tend to be more interested in things that they know about, and are often motivated to extend their knowledge of such concepts. Consequently, a key strategy of promoting lifelong learning is to expose the learners to a wide range of contemporary concepts. The flip side of the coin, however, is to convey to the learner that the journey of lifelong learning is a fluid as the evolution of society itself; as one escalates, so should the other, otherwise a marked incongruence, dissatisfaction, and disenfranchisement occur.

Ideally, instructional experiences produce individuals who are observant, seek enjoyment through interaction with their environment, and continually strive to remain abreast and contribute to the growth of civilization.

Summary

Education should be geared toward developing citizens who maintain a contributing, healthy, and self-sufficient status in society. Learners should be provided a variety of experiences and responsibilities which engage them in preserving their physical and mental health, developing essential competencies, preserving the natural environment, having political and social awareness, having positive family and personal relationships, developing and maintaining self-esteem, and developing a personal philosophy which establishes a relevance of external conditions and the self. The acquisition of such competencies and attitudes enhances the quality of life for the individual as well as the society.

Outcome Area 1: Wellness-related decision-making and change.

Learners will:

1. Know the positive and preventive behaviors that will promote wellness for them, their families and their communities;
2. Practice healthy decision-making in real-life situations;
3. Communicate their knowledge to parents and community resources;

4. Advocate for collaborative changes (in schools, neighborhoods, city governments, etc.) which will enhance community wellness.

Outcome Area 2: Family-living and parenting skills.

Learners will:

1. Know the importance of parenting skills and parental responsibility;
2. Simulate and/or practice appropriate family living and parenting-related skills;
3. Know and use community resources which can help strengthen families and family living;
4. Advocate for changes which will enhance family living in their communities.

Outcome Area 3: Enhancement of the quality of community life.

Learners will:

1. Know the qualities of positive, healthy communities;
2. Know the social and political means to move toward positive community change;
3. Participate in their communities, especially in the area of community service learning;
4. Choose future careers which will benefit the quality of community life.

Outcome Area 4: Achievement in and appreciation of the visual and performing arts.

Learners will:

1. Participate in at least one of both the visual and performing arts;
2. Practice artistic problem-solving skills;
3. Apply their artistic knowledge to other areas of study, showing some understandings and solving interdisciplinary problems;
4. Appreciate the artist's contributions to quality of life;

5. Have a cross-cultural appreciation of the arts.

Outcome Area 5: Positive regard for the natural environment.

Learners will:

1. Show proficiency in the essentials of scientific inquiry--observation, reading, writing, research, inquiry, reflection, prediction, critical thinking, planning and organization;
2. Know resource people and support organizations that provide education and resources for preservation of a healthy natural environment;
3. Engage in effective activism for preservation of the natural environment.

Outcome Area 6: Managing work and leisure.

Learners will:

1. Know that the work place is as evolving as the larger society and that it is no longer commonplace to select and remain with an occupation for life;
2. Exhibit essential employability skills--positive peer interaction, collaboration, responsibility, dependability, and problem-solving strategies;
3. Be technologically literate;
4. Identify various occupational fields and the competencies which they require;
5. Identify means by which they can be contributing members of society;
6. Designate activities in which they can engage themselves during "free" time;
7. Show pride in leisure experiences--group and individual;
8. Show evidence of time management for work and leisure.

Outcome Area 7: Incorporating values and ethics in decision making

Learners will:

1. Anticipate how their actions will affect themselves and others;

2. Exhibit respect for others (individually and culturally) and an understanding of a variety of cultural philosophies and religious doctrines.

3. Practice cooperation, negotiation, compromise, and conflict resolution.

Outcome Area 8: Lifelong learning.

Learners will:

1. Identify some of the dynamics of change within the society;

2. Engage in immediate and long-term goal setting;

3. Engage in task analysis for personal goals;

4. Identify community resources for lifelong learning opportunities.

THEME # 4: TECHNOLOGY

Definition

Technology is the sum of all human knowledge used to transform resources for the purpose of meeting human needs. It is the means by which people control or modify their environment in a disciplined and thoughtful process, and, most importantly, it is controlled by man to improve his environment. (Hacker, Barden, 1988).

Introduction

Technology has been central to human life for over a million years during the Stone Age from about 1,000,000 B.C. to 3,000 B.C. when stone was the major material used for tools; the Bronze Age (which began in about 3,000 B.C.) when people first made tools and weapons from bronze and other materials, and, the Iron Age when iron came into major use (1200 B.C. to 450 B.C.).

In recent decades, technology has caused more remarkable changes to occur than ever before in human history. Society is now completely surrounded by technological systems and has become very dependent on the products and services provided. In the agricultural era (450 B.C. to 1700 A.D.), individuals produced and provided for their own sustenance. During the era of the Industrial Revolution, a great many devices were invented to replace human muscle with machinery. Steam and electricity were harnessed to run factories and production centers. Since approximately 1950, America has entered the Information Age, when many of today's products are based on computers and electronics. (Cook, 1987).

In fact, information doubled from 4 B.C. to 1950. Then another doubling took place from 1950 - 1960. Then, in five years, information doubled from 1960 - 1965. From 1965 - 1985, information doubled every three years. From 1985 until now, information is doubling at the rate of every eighteen months. By the year 2000, it is estimated that 44% of our workforce will be engaged in the collecting, analyzing, synthesizing, storing, structuring and retrieving of information as a base of knowledge.

Rationale

Because the pace of technological change has increased so rapidly during the past several decades, technology has become a very important force in contemporary society. In order to understand and to make sense of our world, students need to know about technology and how it affects human lives.

This concern about technology has permeated all of the literature from the Delphi Survey, and has emerged as a major theme in the preferred curriculum of the 21st century. School is the ideal place to begin to foster an understanding of technology and the role it plays in shaping our culture. Students need to learn at an early age that technology is the "sum of all human knowledge, used to transform resources for the purpose of meeting human needs. It is the means by which people control or modify their natural environment." (Hacker, Barden, 1988). Technology is a disciplined, thoughtful process that uses scientific, material and human resources to achieve human goals.

Curriculum Change

"This new scientific literacy which embraces science, mathematics and technology has emerged as a central goal of education. Educators have yet to act decisively enough to prepare these young people for a world that continues to change radically in response to the rapid growth of scientific knowledge and technological power." (Johnson, 1989)

Both the National Science Teachers' Association and the American Association for the Advancement of Science have recommended that the study of technology education not be taught as a single discipline. Our team also believes that Mathematics, Science, Technology Education and Computers must be fused into a single discipline which shows the relationship between them. Mathematics and science can no longer be taught as if our students are to become "pure" mathematicians or scientists. These traditional courses where students read about concepts are too abstract to interest them. The "layer cake" approach of one year of algebra, geometry, and calculus, and a year of life science, chemistry or biology must be replaced with courses in which concepts from each scientific discipline are taught each year, progressing from the descriptive to the abstract--an approach more common in other nations throughout the world. (ASCD, September, 1990)

A truly sophisticated program of Technology Education would also demonstrate linkages with communications, psychology, ethics, history and economics to present a more accurate holistic and anthropological view as recommended by Ernest Boyer in his "High School: Report on Secondary Education in America." The Carnegie Foundation Report (1983) states that all students should study how science and technology have been joined throughout the centuries, and the positive effects of this technology on today's living.

Technological Literacy

The technology curriculum of today must be adjusted to correspond to the needs

of our students and their future. Today's citizen must be able to function as:

- 1) a user of a vast array of technology;
- 2) a decision maker in the use of technology;
- 3) a consumer in the purchase of a wide variety of technology;
- 4) a key element in the further use or development of technology; and,
- 5) a worker and wage earner in an increasingly technological workplace.

(Maley, 1990)

In addition to the curriculum/knowledge needs of our students, this list of "practical applications of current technologies" calls for a form of technological literacy that is unparalleled in human history. This is not literacy that is restricted to certain groups or individuals, but rather a literacy demanded of most people.

Furthermore, the National Science Foundation Report (1983) lists five important types of understanding that can contribute significantly to the concept of technological literacy. These five understandings include:

- 1) the historical role of technology in human development;
- 2) the relationship between technological decisions and human values;
- 3) the benefits and risks of choosing technologies;
- 4) the changes occurring in current technology; and,
- 5) an understanding of technology assessment as a method for influencing the choice of future technologies.

Summary

The place and relevance of a new curriculum for Technology Education in the present technological society is beyond question. The issues center around the extent to which this area of study can move away from the cellular concept of subject matter of math, science, computers and industrial arts to the broad new paradigm shift of a new liberal arts component--a technological education designed for all citizens in a democracy.

Outcome Area 1: Technology in a Changing World

Teachers and Learners will understand:

- 1) the historical role of technology in human development and in society;
- 2) the relationship between technological decisions and cultural values;
- 3) the alternatives in technological choice;
- 4) the rapid changes occurring in current technology;
- 5) an understanding of technology as a method for influencing the choice of futures in technology.

Outcome Area 2: Teaching Strategies

The educator must provide:

- 1) an interdisciplinary approach to Technology Education which combines math, science, industrial arts and computer instruction beginning at an early age;
- 2) a "hands-on" approach which is developmentally appropriate;
- 3) ethics/valuing in technology applications.

Outcome Area 3: Technological Literacy

All citizens must be able to function as:

- 1) consumers of a wide variety of technological products;
- 2) decision makers personally and community-wide in the use of technology
- 3) key elements in the further use of technology;
- 4) workers and wage earners in an increasingly technological workplace.
(Maley, 1990)

THEME # 5: SELF ACTUALIZATION

Introduction

Abraham Maslow's research during the 1930s is the basis for the modern definition and understanding of self-actualization. Maslow defined self-actualization as "the full use and exploitation of talents, capacities, potentialities, etc.," and further defined it to require "the absence of neurosis, psychopathic personality, psychosis, or strong tendencies in these directions."

People who are self-actualized, according to Maslow, "seem to be fulfilling themselves and to be doing the best that they are capable of doing." Self-actualization implies gratification of basic emotional needs for safety, belongingness, love, respect, self-understanding or sometimes 'conquest' of these needs" (1973).

Maslow outlined 14 components of a self-actualized individual personality, ranging from reality perception to creativeness. These components describe qualities which Maslow felt were necessary, in varying degrees, for individuals to be considered self-actualized (1973).

Our definition of self-actualization, for the purpose of application to curriculum, is somewhat simpler than Maslow's. We regard self-actualization as "pursuing self-development to one's maximum potential," and believe that self-actualization is ideally a lifelong process which facilitates growth and change.

Our preferred curriculum focuses on four areas of self-actualization. We believe these areas offer the greatest applicability to a futures-oriented curriculum:

1. Literacy
2. Internal awareness
3. Independence
4. Collaboration and human relations

A curriculum which seeks to empower the learner to strive toward self-actualization will benefit from focus on these areas.

Literacy

I think by far the most important bill in our whole code is that for the diffusion of knowledge among the people Preach, my dear sir, a crusade against ignorance. (Thomas Jefferson, 1786)

Every student facing the 21st century must become an individual who can

communicate and thrive in a changing world. Information and technology will continue to increase in importance in both work and everyday life. The acquisition of literacy skills is crucial for full participation in society, for mastering new jobs and new economic and political structures. Literacy will profoundly affect individual quality of life.

Real literacy is the raw material of the information and technological age. Surface literacy--reading, writing, and computing to find the "right" answer or to pass tests in school can no longer be an acceptable definition or goal. Literacy for the 21st century must be redefined as follows: Literacy is the demonstrated ability to reason effectively and process information appropriately and successfully in everyday-life situations for personal and social reasons. Real literacy, referred to as functional literacy, is an enabler. Real literacy is power.

Outcome Area # 1: Personal Literacy:

To competently process information in the age of information and technology, a self-actualized, literate individual must:

1. Know how to get information, test its validity and use it to suit personal needs;
2. Be able to think creatively and critically--analyzing, synthesizing, evaluating, and extending information;
3. Know how to solve problems and make decisions;
4. Be able to confidently engage in critical dialogue and inquiry;
5. Be able to refine and effectively communicate thoughts, ideas, and opinions;
6. Know how to learn; and
7. Be a strategic, motivated, lifelong learner.

The development of self-actualized, literate, lifelong learners must be predicated on a new belief system. We must believe that all students can become functionally literate and that literacy is everyone's responsibility. Literacy must be woven into the fabric of every classroom across the curriculum.

The Literacy Curriculum

The preferred curriculum for the 21st century must be conceptualized in a holistic, interdisciplinary design. It requires an integrated, experiential, thematic, and authentic curriculum that extends beyond the traditional classroom walls. In contrast to the current scope and sequence model of curriculum, it must be open, flexible, innovative, and student-centered rather than textbook-centered. There must be less

focus on acquiring knowledge and information and more focus on the process of learning how to learn.

If we are to develop literate learners, this new curriculum design requires knowledge of current research and learning theory and a knowledge of child development. Current research and theory demonstrates:

1. The role of prior knowledge in constructing new knowledge;
2. The interconnectedness of the reading and writing processes;
3. The value of cooperative learning must inform classroom practice.

Developing self-actualized, literate, lifelong learners requires an in-depth understanding of how we learn, how concepts are formed and related to one another, and how learning is anchored in what the student already knows.

It also requires knowledge of child development. To develop literate learners, the focus must be on growth and change within the individual, and recognition that learning for each individual is unique. No typical students exist, only students who do well or less well in a particular environment or on a particular task. This new literacy curriculum must capitalize on the synergy and power of cooperative learning and peer coaching in promoting critical and creative thinking and developing positive attitudes toward learning.

Instructional Model for Literacy

Implementing this literacy curriculum will mean changing our model for instruction. We must move from an information disseminating model to one of interactive teaching and learning. Teachers and students will question, seek answers, and learn together. Teachers must see themselves as enablers, not assessors. The teacher will act as facilitator, coach, and mentor providing explicit instruction, modeling literacy strategies, giving guided practice and corrective feedback, and creating opportunities for application in real life situations. Teachers will work collaboratively with parents to provide the scaffolding for nurturing literacy.

Students must be given the opportunity to develop critical thinking, problem solving, and decision making skills in a variety of relevant and authentic situations. The focus must not be on covering materials, for the textbook can no longer be the major source for learning. Students need opportunities to deal in depth with the materials they read and write in order to understand the interconnectedness of the literacy process. For example, students can learn about the judicial process by visiting the court house, viewing a video, watching closed circuit television, reading the newspaper, role playing, reading, writing, and reflecting. To become literate, students must deal with real issues that actively involve them in developing a moral, civic, and political conscience. This can be accomplished through the process of constructing and reconstructing their personal world.

Outcome Area # 2: Teacher of Literacy:

The key element in developing self-actualized, literate learners for the 21st century is a self-actualized, empowered teacher who:

1. Is an enthusiastic lifelong learner;
2. Provides a risk-free environment;
3. Encourages decision making and accepts divergent thinking;
4. Connects pedagogical theory and practice into wider social issues;
5. Is critically reflective and tolerant;
6. Respects differences; and
7. Shares ideas and power.

Internal Awareness

Self-development will begin with a keen awareness of the self. The learner will develop a strong internal perspective, with emphasis on continual self-discovery. Curriculum which encourages self-actualization must build upon the prior experiences and self-awareness that each youngster brings from his or her personal environment. This approach can foster attitudes with internal benefits, such as self-confidence, improved self-esteem, and increased self-awareness. It carries the implication of immediate acceptance of, and unconditional, positive regard for the learner.

The curriculum must allow the individual to discover his or her own learning style and the means to benefit from it, as well as to develop strengths in other styles of learning. Self-evaluation skills should be developed, as well as the ability to benefit from constructive criticism and external evaluation.

Self-acceptance can be fostered by encouraging a nonjudgmental attitude toward the self and others, allowing and even encouraging mistakes and risk-taking. Human failings must be regarded as natural, with self-criticism focused upon self-improvement as opposed to self-punishment.

Components of a self-actualizing curriculum would enable the learner to derive satisfaction from early developmental tasks, to develop a realistic and functional awareness of the self as a worthwhile human being, and become aware of self-perceptions and the need for feedback regarding these perceptions.

The learner should be encouraged to recognize the importance and validity of feelings throughout the learning process, how feelings differ from actions, and the consequences one might expect from the expression of feelings. A normal range of such feelings and emotions as joy, sorrow, anger and ambivalence can be explored through curriculum. The expression of feelings in an acceptable and appropriate manner should be modeled and encouraged. Students can be expected to recognize and accurately define their own feelings, relate their feelings to their own actions and to reactions from others, make associations between feelings, actions, and

consequences or results, and analyze options and alternatives.

Essential to the development of internal awareness is one's ability to identify his or her needs. Educators must seek to help the individual recognize and label his or her personal needs, assess their validity, and develop strategies to have them met. Students require guidance in order to use what they know and feel about themselves.

Educators must begin by recognizing the need for the integration of self-actualizing goals within the curriculum. We must strive for an internal awareness which can be modeled for the learner. Unconditional, positive regard for the individual must be emphasized. The learner's internal awareness can then be developed and nurtured in such a way as to foster efforts toward self-actualization.

Outcome Area # 3: Internal Awareness

The learner will:

1. Develop self-awareness;
2. Build a strong internal perspective;
3. Develop self-confidence;
4. Discover his/her own learning style;
5. Develop self-evaluation techniques;
6. Develop self-acceptance;
7. Solicit feedback;
8. Recognize importance and validity of feelings;
9. Evaluate consequences;
10. Accept a normal range of emotions;
11. Express feelings and emotions in an appropriate manner;
12. Identify own needs;
13. Seek to have own needs met.

Independence

Our definition of independence as a goal of a self-actualizing curriculum relates to self-governance in the process of self-development. Curriculum must empower the learner to develop skills as necessary to function in an environment of personal freedom and self-governance.

Independent learners will be lifelong learners. They are likely to be critical and creative thinkers, with the ability to obtain and analyze data and information. They will be problem-solvers and decision-makers.

Independent behavior requires recognition of the need for skills and processes for acquiring those skills. Application of knowledge in a holistic manner is essential. Ability to evaluate consequences and outcomes, analyze points of view, and obtain

feedback, both internal and external, will be vital. Learning will be active; students will discover early how to find things out by themselves. Independent learners will be self-motivating. They will demonstrate qualities of initiative, perseverance, determination, accountability, responsibility, and flexibility.

The foundations for independent behavior are closely linked to the other self-actualizing goals of literacy, internal awareness, and collaboration and human relations. Self-awareness is an important key to assessment of individual needs and realization of independence. Independence will also require self-acceptance and self-understanding. Independent behavior will be self-gratifying. The learner will be aware of his or her needs and will understand how to have those needs met.

Strategies will naturally facilitate self-development of the independent individual. Students can be shown how to interpret and relate facts about themselves and their world and to apply this knowledge in solving everyday problems and in setting realistic goals. They will develop personal skills which complement social learning and academic skills.

Instruction may be directed toward the application and transfer of learning and skills. Practice and/or "real life" situations may be employed. The learner will seek to develop unique methods for gaining information, while being keenly aware of his or her own learning style, and will be able to actively solicit information in ways that meet the requirements of the situation.

Facilitators can assist in the development of independent, self-actualizing learners by attempting to meet the educational, personal, social and career development needs of students early. Instruction can be systematized, sequential, developmental experiences, and still allow for the direction independent learners may offer.

Outcome Area # 4: Independence

The learner will:

1. Develop self-governance;
2. Become a lifelong learner;
3. Develop critical-thinking skills;
4. Develop creative-thinking skills;
5. Be able to obtain and analyze data and information;
6. Be problem-solving oriented;
7. Be a decision-maker;
8. Recognize the need for skills;
9. Apply knowledge in a holistic manner;
10. Evaluate consequences and outcomes;
11. Analyze points of view;
12. Obtain feedback, internal and external;
13. Be an active learner;
14. Be self-motivating;

15. Demonstrate qualities of initiative, perseverance, determination, accountability, responsibility, flexibility;
16. Be self-accepting;
17. Be aware of own needs, and the means to have those needs met;
18. Apply knowledge to solve problems;
19. Set realistic goals;
20. Be aware of own learning style.

Collaboration/Human Relations

The modern world has become more interdependent as a result of rapidly changing technology. Now more than ever, there arises a need for effective communication requiring skills in collaboration, conflict resolution and sensitivity to the well-being of all people. As the self-actualized learner develops into a literate, independent, self-evaluative critical thinker, another dimension of curriculum must emerge. A student prepared for the future must be able to work collaboratively with other people and must possess positive human relations skills.

Empowered learners must experience, identify and understand the dynamics of positive interpersonal relationships in order to acquire the knowledge necessary to be successful collaborators; they cannot merely be told how to relate. A preferred curriculum must provide learners with opportunities to become:

1. Risk takers;
2. Decision makers;
3. Effective communicators;
4. Active listeners;
5. Problem solvers.

In addition, students must have the ability to share ideas, thoughts and feelings and accept, appreciate and value diversity in others. Dignity and mutual respect should be modeled by the teacher so that these qualities will be internalized by the learners. A specific outcome for one involved in this preferred curriculum would be to work in a team setting and achieve a common goal while working as a problem solver and an encourager of others with a noncompetitive attitude.

Reaching out and extending beyond oneself is another key behavior in the preferred curriculum. The ability to derive satisfaction and fulfillment from the achievement of others will create an environment of support and life-giving in the classroom which will eventually transfer to the world.

The teaching/learning strategies necessary to accomplish these desired outcomes can be developed around several themes. The facilitator must provide opportunities for students to work cooperatively to promote collaboration. Providing relevant experiences in the learning environment through which students can work in teams can encourage risk-taking and reaching out to others. Educators need to

channel children at-risk into becoming active "risk-takers." Presenting real-life problem solving situations to teams of learners and allowing them to discover, think and act on their own can also provide students with the positive control and power needed to direct change in their lives.

When students learn in collaborative environments, the traditional element of competition between individuals is reduced. The focus remains truly on the process of learning and not winning or losing. It is imperative that this sense of cooperation and teamwork be established across the curriculum.

Outcome Area # 5: Collaboration/Human Relations

Learners will:

1. Work in a small team situation to achieve a common academic goal;
2. Work in a small team and exhibit a specific social skill;
3. Be able to articulate in a group setting positive elements of diversity;
4. Be able to simulate group situations where dignity and mutual respect are exemplified;
5. Be able to list and explain skills necessary for team building and decision-making in a group;
6. Be able to list and exhibit strategies necessary to achieve consensus;
7. Be able to work in a team situation with the goal of solving a specific real life problem and achieve consensus;
8. Be able to define and give examples of constructive and negative competition;
9. Be able to self-evaluate his or her own ability to work as a team member;
10. Be able to list specific strategies that will be utilized to improve his or her ability to work on a team;
11. Articulate acceptance and understanding of the perceptions and feelings of others in a group situation;
12. Be able to list and explain diverse learning styles.

Summary

When students participate in a learning environment in which they are decision makers, their sense of power increases. They have an incentive to move toward life-long learning. They must not only be presented with information, but must discover, create and work to uncover and formulate new learning. This kind of curriculum provides for enhanced self-esteem, self-worth and self-evaluation; and interconnects with all of the other aspects of the self-actualized learner. No single component of this curriculum can be implemented in and of itself. There must be constant blending of all parts in the learning environment to achieve the whole, integrated, self-actualized student.

Self-actualization is not limited to the dimensions presented in this portion of the preferred curriculum. This design can be embellished and modified to meet the specific needs of the learning situation. The concept of teacher as model is strongly urged. Aligning the outcomes and behaviors of the teacher with those of the student is essential in order to restructure our curriculum. A common thread woven throughout this portion is that this concept of self-actualization can be addressed across a developmental continuum.

Focusing on self-actualization with the specific dynamics of LITERACY, INDEPENDENCE, INTERNAL AWARENESS and COLLABORATION/HUMAN RELATIONS will make the vision of the prepared, lifelong learner of the 21st century a reality.

Chapter Five

CONCLUSION

As the Preferred Curriculum for the 21st Century has emerged from the Delphi Survey research through its five major themes, the authors of this project truly have "begun the challenge to participate in creating a new vision" (Crowell, 1989) of their role as educators in preparing students to function to their highest potential. The authors firmly believe that the future of education will be shaped and reformed by the genius and creativity of its empowered educators, students and parents, and this project is a beginning to accomplish this goal.

The authors hope that educators will be able to use the findings and projections of this study as guidelines for the development, implementation and delivery of a preferred curriculum for the 21st century. The authors believe that the findings can serve as a framework for change and for the realization of the project's mission: the design and implementation of significant curriculum transformation in order to ensure that all students are adequately prepared to meet the challenges of living in a rapidly changing national and international society.

Restructuring America's schools must reflect the fact that all aspects of life and change are interrelated and interactive: so must be the preferred curriculum. Its five major life themes of Change and Adaptability, Global Interdependence and Cultural Diversity, Quality of Life, Economic and Technological Change and Self-Actualization must be integrated to cross all discipline boundaries. Only then will schools prepare students to become effective and lifelong-learning citizens of the future.

Educators interested in action research on Quality Schools Community Development and Teaching-Learning GREEN in the local Bioregion (A Preferred Curriculum for the 21st Century) should contact the Learning Community Network (ASCD) at the School of Education, Oakland University, Rochester, MI., 48309-4401. Phone (313) 370-3052, FAX, (313) 370-4202.

APPENDIX

The following are samples of the two rounds of survey questions sent to respondents in each of the five key driver areas of environmental scanning.

DEMOGRAPHICS

ECONOMICS

POLITICS

TECHNOLOGY

SOCIAL CLIMATE

DEMOGRAPHIC TEAM FOR STRATEGIC PLANNING QUESTIONNAIRE

ROUND ONE

1. Give a brief projection of the population trends that will take place between the years 1990 and 2000.
2. What implications will the changing family structure have on the public education system?
3. How will the increasing population of the elderly impact our society?
4. How can schools best prepare students who will change jobs several times during their career?
5. How will the schools of the future deal with the impact of increasing minority enrollment?
6. How can we address the increasing "at risk" students population--those potential drop-outs who will be destined to become affixed to a life of poverty and government dependence?
7. What steps could be taken to avert the projected two tier society of the future?

SIGNED _____ DATE _____

DEMOGRAPHIC TEAM FOR STRATEGIC PLANNING QUESTIONNAIRE

ROUND TWO

Please review the following brief scenarios and react with either agreement or disagreement. If you have a different view, we would appreciate your comments or suggestions. Please feel free to use additional space if desired.

1. Topic: Population Trends

The school age population will continue to decline in size. By the year 2000, only 38% of the population will be between 5 - 17.

The median age of the population will continue to rise. By the year 2000, the median age will be 36.3, while the proportion of older Americans will continue to rise with 17% of the population at 65 or older. This older segment of the population may compete with schools for federal funds.

Impact:

A. Because of the decline in school age population, schools must become more strategic and competitive in curriculum and programs.

B. Schools must be creative in attracting the support of senior citizens by offering programs to serve their needs.

Reaction: Agree: _____ Disagree: _____

Comments:

2. Family Structure:

Schools will need to respond to the changing family structure. Because of the increase in single parent families and working parents, schools will be forced to assume more custodial care. Pre-kindergarten education, day care, latch key, health care and parenting support and education will become vital to the school year 2000.

Impact:

A. Round the clock schools will be essential.

B. Educators will need to be more flexible in their time and energy in serving the community.

Reaction: Agree:_____ Disagree:_____

Comments:

3. At-risk children

At-risk students include all children who are in danger of leaving school unprepared for life. Early identification and early intervention are the keys to addressing the needs of these students.

The role of teachers should be to promote lifelong learning from cradle to grave in order to develop strategic teaching skills and to meet the real life needs of children.

Impact:

A. Schools must make significant changes in the curriculum in order to combine traditional academic foundations with logic, critical thinking and decision making skills.

B. Schools must realize that the failing of students to learn is the failing of schools to teach.

Reaction: Agree:_____ Disagree:_____

Comments:

4. Topic: Minorities

Increasing minority populations in our schools will necessitate revolutionary changes in the way teachers address diversity. Cultural differences should be celebrated, not just tolerated.

Impact:

A. Teachers must raise expectations for minority students adopting the premise

that "all students can learn."

B. Heterogenous grouping and cooperative learning will be necessary to facilitate the understanding of cultural diversity.

Reaction: Agree:_____ Disagree:_____

Comments:

5. Topic: Increased Elderly Population

By the year 2000, 20% of the voting population will be comprised of people 65 or older. They will compete with schools for federal funding.

A decline in the workforce will result in diminished funding for benefits for the elderly. This workforce will be comprised of our present school population. There will be political conflict between the young and older workers, and a difference of opinion in work ethic, priorities, and security needs.

Impact:

A. Schools can no longer focus only on the 12-K population, but must address the needs of the elderly in order to garner their commitment to the schools.

B. The schools must prepare the youth of today to face the responsibilities of providing for the needs of an increased elderly population of the year 2000.

Reaction: Agree:_____ Disagree:_____

Comments:

ECONOMIC TEAM FOR STRATEGIC PLANNING QUESTIONNAIRE

ROUNDS ONE AND TWO

SURVEY RESPONSE FORM

Please consider the following questions in relation to your business and to our nation in general. You may wish to express agreement, disagreement, counter points of view or additional information. Please feel free to use additional space for your responses if you desire.

1. The movement of funds, credit and capital among countries is increasing. Many American companies are getting the majority of their revenues from overseas. As a global economy develops, how will the United States be affected in the year 2000?
2. Lifelong learning, training and retraining is essential to productivity, achieving individual potential and international competitiveness. With the volume of information doubling every 18 months and change taking place at a faster rate, periodic upgrading of education will become a routine. To what extent do you think education can play a role? Can business/education partnerships be developed? How effective might they be?
3. America is continuing to age and nonparents make up the majority of the population. These are reluctant voters in supporting tax referenda. It now appears as if education will continue to be run and funded locally. Michigan legislators are embroiled in a debate as to how to finance Michigan schools and will present two choices to the citizenry for a vote in November. What changes do you foresee in the future of funding of education?
4. People are living longer. Baby Boomers have reached maturity and their children (Baby-Bust generation) are coming of age. As the demographics change and our society continues to age, what do you feel will be the ramifications in the year 2000?
5. As both de-layering of management and the decline of blue-collar jobs due to automation continue, what do you see as being the major changes in the job market/labor force in the year 2000?

6. Michigan's automobile dominated economy is always in flux. There is a return to and an increase in the barter system. Self-employment is on the rise. Business will have to increase production with a minimal capital expenditure. As we enter the next century, what do you feel will be the changes in production, distribution and consumption of wealth in this country? What effect will these changes have?

7. It seems that the 1980s has been a decade of solid economic achievement in terms of total growth, industrial production, job creation, increase in personal income and a decrease in inflation. What will be the state of the economy in the next decade as it relates to inflation and recession?

8. In light of the tax reform of the 1980s, what further changes do you see in the United States taxation system by the year 2000?

9. As talk continues about the diversion of the Great Lakes, as we further pollute the environment, and as we recognize that our supplies of fossil fuels are finite, how will the use of natural resources change in the 21st century? What economic ramifications will these changes create?

For the second round of the economic driver, the questions presented were the same as the first round. In addition, participants' responses from the first round were included. The participants were then asked if they agreed or disagreed with the original responses and were asked for additional comments.

ENVIRONMENTAL SCANNING: POLITICAL

In the space below, please identify the emerging trends, issues and public opinion you feel may translate into policy making, regulatory or legislative behavior in the year 2000.

Signature_____ (optional)

Issues and Trends (n)=No. of respondents	Agree? Yes No	Implications for Education
POLITICS		
1. Further budget constraints and conflicts between liberals and conservatives on social programs.	12 0	a. Everyone after the same amount of money. b. Increased competition for a shrinking pie. c. Continued budget cuts demand collaboration between agencies. d. AIDS and sex education programs to facilitate family life. e. Teacher salaries to flatten.
2. Increased pressure for political accountability.	7 6	a. More information and involvement for voters. b. Legislative process may appear more active than it is.
3. Redefined roles for major political parties.	7 6	a. Both parties will target middle class for support b. Women will demand more focus on education by both parties. c. Ideological differences are lessening and ideas will be most important in the future.
4. Increased need for laws in environment and technology.	13 1	a. State and federal government will encourage business to contribute to educational technology. b. Impact on physical changes, record keeping.

			c. Modernization of schools and more new construction needed. d. More science courses at the elementary level. e. More intervention in school curriculum by agencies. f. Increased need for information and research.
5. Increased political power by minorities/elderly.	7	6	a. School elections. b. School millages and funding. c. Schools must serve all constituent groups. d. More accountability for school expenditures. e. Increased need for planning. f. More bilingual education. g. Conflict between elderly and minorities on taxes.
6. Increasing difficulty with immigration issues.	9	2	a. Conflict over English only language in schools. b. Frustrated white "majority." c. More research and planning.
7. Integration of government services and consolidation of program costs.	7	3	a. Day care b. Consolidation of school districts leads to greater control of education at national level. c. Changes in school management. d. Increased collaboration. e. Diminished resources. f. Turf battles between units.
8. Increased legislative	3	10	a. Need to educate in

responsibility at expense of
judicial branch.

government.

9. Reduced Soviet military
threat will lower defense
spending.

4

7

a. Possible lower
spending at graduate
level.
b. More funds available.

10. Continued deterioration of
relations with Central and South
America.

2

8

a. More comparative
government classes.
b. Increased bilingual ed.

11. Increased use of technology
to improve productivity in
government.

9

1

a. Impact on record
keeping.
b. Need to educate work-
force and provide life-long
learning.
c. More pressure for
schools to teach
technology.
d. Expanded in-service
programs.
e. Expanded government
education for teachers.

12. Increased socialism in
democratic countries and
increased democracy in
autocratic countries.

6

5

a. Greater need for
international education.
b. Increased need for
textbook currency.

13. Reduced dependence on
nuclear weapons.

3

9

14. Renegotiation of defense
agreements between U.S. and
allies.

2

8

a. Fewer recruiters on
campus.

15. Balance of power will be
redefined along economic and
diplomatic lines.

8

3

a. Greater need to prepare
students for changing
economy.

ECONOMICS

1. Demand for policy and tariff actions to improve U.S. competitiveness in world and new EEC markets.	9	2	a. Emphasis on language knowledge will be a competitive edge. b. Greater demand for competitive students. c. Increased demand for geography.
2. Continued move of revenue responsibilities to local government units.	8	3	a. School funding will be impacted by demands of other units b. Trend toward consolidation.
3. Greater demands for retiree benefits.	11	1	a. Less money available b. Must provide work-force through education which can fund benefits.
4. Move toward full economic union with Canada.	6	6	a. More jobs and shifts in population b. Need to educate students in Canada.
5. Further tax increases or changes to tax laws.	10	1	a. Education will receive favored position through tax credits and other programs. b. More taxpayer resistance to higher taxes. c. Increased funding.
6. Increased international cooperation and in science and research.	10	1	a. Provide education for research and development at all levels. b. Intensified efforts in science. c. Technological links between education and researchers.
7. Japan will address internal needs and its impact on the market will slow.	5	4	a. Increased influence of women in Japanese culture.

LAW

1. Further endangerment of privacy rights.	9	4	a. More police duties for schools b. Must have educated society to deal with individual rights. c. Drug education programs. d. Political science classes should evaluate case studies.
2. Heightened legal battles over medical issues.	9	3	a. Impact on special education. b. Ethical issues to be taught.
3. Decreased respect for legal system.	6	6	a. Schools need to differentiate between theory and reality.
4. Trend toward approval of capital punishment.	5	4	a. Curriculum changes. b. Educators should be evaluating objective studies.
5. Continued counter-reaction to affirmative action.	9	1	a. Must have skilled and educated workers. b. Fewer minorities in higher education. c. Elimination of affirmative action programs. d. Civil rights groups regain lost power and influence. e. Education needed to cope with cultural shifts.

EMPLOYMENT

1. Continued trend toward an older workforce.	11	1	a. Less staff turnover. b. Retrain staff.
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			c. Job retraining programs. d. More community education. e. Fewer children and more school closures.
2. Continued need for new jobs at state level.	4	4	a. Increased need for training. b. Federal government to relinquish programs.
3. Higher skill requirements for workforce.	11	2	a. New curriculum needed. b. Job training. c. Research and development in making technology useful. d. Increased use of technology.
4. Decreased standard of living for middle class.	9	2	a. May emphasize value of education. b. College alternatives due to the high costs.
5. Increase trend toward multiple careers.	11	0	a. More adult education needed. b. Change will affect all facets of society. c. Retraining programs needed.
6. Elimination of unemployment as phenomenon.	2	9	
7. Increasing diversity in the workforce.	8	2	
8. Increase in the retirement age.	7	2	a. Staff stratification. b. Recreation and health implications. c. More teacher burnout.
9. Recession is not likely.	2	10	

ENVIRONMENT

- | | | | |
|--|----|---|--|
| 1. Decaying infrastructure (roads housing, waste management, etc.) | 10 | 2 | <p>a. Increased funding needed for physical plant.</p> <p>b. Education funding pressured.</p> |
| 2. Magnified environmental and energy problems. | 11 | 1 | <p>a. Fewer students if population levels off.</p> <p>b. Education funding pressured.</p> <p>c. More environmental impact statements required.</p> |
| 3. Continued trends toward overpopulation and resource depletion. | 10 | 2 | <p>a. More emphasis on ecological and social responsibility.</p> <p>b. Must educate for the use of resources.</p> <p>c. More science courses.</p> |

TECHNOLOGY AND MEDICINE

- | | | | |
|---|----|---|---|
| 1. Growing impact of medical advances (genetics, etc.), on society. | 10 | 1 | <p>A. More drain on special education resources.</p> <p>b. More science education</p> <p>c. Ethical education needed.</p> <p>d. Increased focus on preventative health practices.</p> |
| 2. Increased role of computers | 11 | 0 | <p>a. New classroom environment.</p> <p>b. Education will take place at any time, any place.</p> <p>c. Technology education needs to begin early</p> <p>d. Enhanced training</p> |

3. Increased segmentation of media markets.	8	2	a. New classroom environment. b. Greater individuality but more need to establish common cultures. c. Multi-media environments for learning.
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SOCIETY AND EDUCATION

1. Increased racism and xenophobia.	2	7	a. Programs in science, sociology, and philosophy needed.
2. Decreased fiscal support for education.	6	6	a. Tough choices needed b. Peel away layers added during period of higher funding.
3. Educational collapse will affect economy.	5	4	a. Economy will suffer if adequate education is not provided.
4. Widening gap between social and economic classes.	10	2	a. Poor teachers teaching wealthy students. b. Must reach out with education to develop self-esteem.
5. Increasing concern for personal health.	12	0	a. More interest in science. b. Provide for increased support due to longevity. c. Expanded health and physical education.
6. Increasing role of education to address inequities.	8	4	a. Education is equalizer. b. Business and agency involvement in education increases. c. Pressure for program changes.
7. Continued expansion of war on drugs and crime.	10	1	a. Education will be used as prevention.

			funding.
8. Continued aging of U.S. population and impact on health care needs.	11	0	a. School millages may not succeed. b. Need to supply personnel to provide care for elderly. c. Improved health education programs.
9. Increased commitment of students and educators to improve quality.	9	3	a. Ongoing research to improve instruction. b. Greater pressure for expanded programs.
10. Increased demand for child care services.	11	0	a. More pre-school and kindergarten programs. b. Schools will provide more human services.
11. Trend toward consolidation of schools.	12	1	a. Fewer jobs and buildings, but more busses. b. Some districts will consolidate while others will split. c. Fewer education jobs, better pay and prestige.
12. Society will become more liberal in government and more conservative on social issues.	2	8	

SOCIAL TRENDS FOR THE YEAR 2000

The following questions are related to the national and/or regions and social trends which will impact education in the next 11 years. As you respond, feel free to raise counterpoints and to use additional space if you desire.

1. What obligations will a "graying America" have for children's care and well being?
2. How will a more diverse culture handle democratic values and equity issues?
3. What impact will a differentiated and changing career market have on leisure activity?
4. As you consider family life and family values, what trends do you see continuing or developing?
5. Looking ahead, what trends do you see in sex roles, gender equity, and in the relationships between women and men?
6. As you consider health issues, (AIDS, environmental pollution, substance abuse, physical unfitness, mental health, increased health costs, etc.), what developments do you see as characterizing the future?
7. Please cite any major evolution in standards regarding morality, values and ethics in our society that you have noted in recent years. Do you think this trend will continue, and what are its implications during the next 11 years?
8. What societal needs/ills do you think are reflected by the school drop-out rate, and how might this be resolved?
9. As we approach the 21st century, what trends do you see developing concerning poverty in our society?
10. What should public schools do to provide more effective programs to satisfy our impending social needs?

SCENARIOS ON SOCIAL TRENDS FOR THE YEAR 2000

Please consider each of the scenarios and react with either agreement or disagreement. Feel free to elaborate, add a comment or express a different view (in additional space if needed).

1. GRAYING AMERICA

The need for improved education and the increasing need for adequate child care will require the support of graying America. Older citizens will be likely to support education by direct involvement and through financial support. Relationships among the graying Americans, children, and teachers will be enhanced. There will be personal, social and financial benefits of this intergenerational involvement for children, their working parents, and the retirees themselves. Care for retired citizens will compete financially with child care and education. Existence on a fixed income will prevent some retired citizens from lending their financial support, however, their need for additional income will generate a pool of workers to satisfy the increasing demand of child care services. The extended work period will add to funds for medical care/Social Security.

Reaction: Agree _____ Disagree _____

Comments:

2. DIVERSITY WITH EQUITY

Our culture will continue to be more diverse. The diversity will become an asset in terms of educating us to the world's values. As with any change, continued conflict with the status quo is likely to prevail in the judicial and political arena as minority groups attempt to achieve equal access, opportunity, and recognition for all. Correspondingly, there must be broader interpretations of established policies to promote equity and allow for differences in policies to promote equity and allow for differences in cultural values. Empathy and compromise are skills that must be taught and learned. Minorities must be trained adequately to stand on their own because it will be important for their success in the world beyond school.

Reaction: _____ **Agree:** _____ **Disagree:** _____

Comments:

3. Sex Roles and Gender Equity:

The results of increased members of two income households will cause merging of sex roles in both the home and work place. More options will be available to both sexes. There will be greater financial equity between the sexes as women's incomes increase. Financial equality will enhance relationships between many men and women. However, contravening trends such as poverty, classism, and racism will have a negative impact and limit equity progress for some. Uneducated males will continue to be financially deprived and as a consequence, women will be forced to assume traditional male responsibilities. A backlash will result from resentment against strides accomplished through affirmative action. Poverty stricken and poorly educated males will want to return to male dominance.

Reaction: Agree: _____ Disagree: _____

Comments:

4. Health Issues

Based on projected costs, our present health system will need to be reshaped and changed. The government will be forced to regulate health care costs. The result will be more rationing and fewer benefits. Steps will be taken toward establishing a national health care insurance program. Middle and upper class citizens will act on their own to supplement their health policies and provide greater self-care and fitness for themselves and their families. Available health resources will be limited for the elderly, chronically ill and poor. The environment will continue to be endangered. Some controlled substances may be legalized and sterile syringes made available. The need for a comprehensive health education program from birth to death will be critical.

Reaction: Agree: _____ Disagree: _____

Comments:

5. Morality, Values and Ethics

A more conservative standard is emerging. The moral values accepted in the 60s

are no longer being generally accepted. The effort to return to a set of previously held values has produced a divisiveness because generally society has changed. Increased citizen involvement will aid the country in reaching a more stable moral and ethical code, not necessarily religious.

Reaction: Agree: _____ Disagree: _____

Comments:

6. The Drop Out Rate

Schools will become more effective by offering the services that their constituents need in order to succeed. Administrators will be more skilled in redefining the role of the school, supporting of pupils and their families, gaining the commitment of the total community, and generally providing/establishing a network for nurturing their pupils toward a mutual goal.

Reaction: Agree: _____ Disagree: _____

Comments:

7. Poverty

Poverty is growing and will continue to do so in the wake of more service oriented jobs which pay less. The widening gap between the "haves" and the "have nots" will widen; the middle class will dissolve. With increased numbers of the poor, we will be less inclined toward give-away programs and instead, favor support programs which require the recipients to earn on their own. Still, society will need to implement programs to break the cycle of intergenerational poverty. The disenfranchised population--children, elderly, mentally handicapped, minorities, women--must be accommodated equitably to retard the expansion of poverty. Local governments and corporations will assume more responsibilities in providing for basic survival needs, child care, and health care services. The poor will always be among us; however, if their numbers are manageable, financial and psychological burn-out of the upper class, who still support anti-poverty programs, will be less likely.

Reaction: Agree: _____ Disagree: _____

Comments:

8. The Role of Public Schools

In order to meet various social needs, public schools must make changes in program, pedagogy, and community involvement. Reaching and educating all children must be a priority. Schools must expect good discipline and work toward excellence. They must also provide "extended family type family services" for those students in need, especially those from dysfunctional families. Sufficient numbers of counselors and social workers need to be an integral part of each school. Engaging all students in the learning process (and reducing the drop-out rate) can result in part with an accomodation to a variety of cognitive styles and abilities and a reduction of class sizes, especially at the elementary level. Specialty and magnet schools should be continued. Vocation and service training will have to start before high school to motivate potential drop-outs. Curriculum will need to emphasize the basics and studentship, but also life skills such as health and values education. Schools will have to be collaborative, drawing in parents and other community members through open educational forums, parentry seminars, adult or community education and even health services. By joining forces with the church, family, medical, and human services, etc., they can bring about effective changes.

Reaction:

Agree: _____ Disagree: _____

Comments:

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